The New York Medical Times

VOL. XVI. NEW YORK, JULY, 1888. No. 4.

ORIGINAL ARTICLES.

THE PROPHYLACTIC AND THERAPEUTIC RESOURCES OF MANKIND.*

BY HENRY G. HANCHETT, M. D.

Member N. Y. Academy of Anthropology.

UNFORTUNATELY in our study of anthropology we cannot overlook the sick man, and it is the purpose of the present paper to inquire into the preventive and remedial resources upon which men have drawn, with a view specially of discovering what influence, if any, increase in intelligence and culture has had in directing the mind towards aids of real and permanent value in combatting disease.

The first physicians were the priests, because the untutored mind, ignorant of the true causes of disease, naturally counted them among those unknown things with which it is the office of the priest to deal. Superstitious rites of some kind were the earliest remedial resources, and very probably the highest antiquity may be assigned to incantations.

It is at least unlikely that swallowing poisons was an early method of treating disease, because the accidental eating of poisonous herbs and berries might easily have caused the first form of sickness, and the primitive man could hardly have argued that, having swallowed a poison, the best thing to do would be to swallow more poison—such reasoning would imply a long series of scientific observations and logical powers of a high order. He would be more likely to conclude that his cramps, spasms and evacuations were evidences of the anger of some deity, and that the thing for him to do was to see the priest and get him to placate the offended spirit.

But in very early days polytheism prevailed, and since now recovery and now death would certainly follow the incantations of any priest, we can readily imagine that a specially fortunate medicine-man would soon gain for his deity credit for an unusual number of cures. This would attract multitudes of the sick to the ministrations of this priest, but his incantations being followed by death in many cases, he or his deity might soon come to be credited with cures of a certain class of troubles, while other classes would seem to meet more successful treatment from some other god. In some such way we may without violence conceive the first step in medical progress, namely the establishment of specialization, to have been taken. Certain it is that among the Egyptians at a very early day there were physicians for all diseases, each of whom limited himself to his own specialty. The idea was generally accepted that there was a deity peculiarly in charge of each separate portion of the body. Our almanacs preserve evidence of this superstition in the representation of a human figure presided over by the zodiacal signs, each one of which was conceived to be the home of a god who cared specially for one region of the body. In the Roman church, too, not so very long ago, a list of saints was accepted, to each of whom prayers were to be offered for recovery from a particular ailment.

The next medical resource of the race was probably the talisman, and grew out of the early astronomical observations. The zodiacal signs, the homes of the gods, being out of sight for a part of the year, men attempted to design something that should represent them during their absence. These representations or substitutes were the first talismans, and were found to be quite as efficient remedies as the constellations themselves.

The step from the talisman to the amulet was short, as the latter was simply a talisman which to be of value must be carried about the person. But the history of amulets shows some real advances in medicine resulting from the fact that among the vast number of substances that were worn about the person as charms, some were composed of drugs which could gain access to the system by absorption and inhalation, and thus exert a true pharmacological influence. Camphor, arsenic, mercury and some other drugs were certainly employed as amulets at a comparatively recent period. Even early amulets, although composed mostly of inert substances, had yet so much of value as resulted from their power of calming and assuring the credulous mind. No intelligent man to-day doubts the

* Read before the International Congress of Anthropology, New York, June 4-7, 1888.

power of the mind to so influence the body as to protect it from, and even to cure it of, many forms of disease, and therefore whatever puts the mind in a position to use that power is a cure or preventive of such disease. Not only did talisman, amulet and charm accomplish just this for the credulous—every medical resource that man has used in any age down to the present has acted in this manner in a larger or smaller number of the cases in which it has been tried. And this is exactly one of the facts that has made the study of pharmaco-dynamics so difficult. It can never be exactly known just how much of the apparent effect of any medicine is due to the influence of the mind of the person taking it. Confidence and hope are the best doctors, and by their aid many a quack has been enabled to pose as a benefactor of his race.

The great step in advance involved in the swallowing of medicines may possibly have resulted from the use of amulets. Whether with the idea of securing efficient contact with the person or not, it is certain that some substances advised as amulets were held to be specially valuable when ground to powder and swallowed. Lapis lazuli, garnet, coral and gold are among the substances so employed.

Although they are still in use even by intelligent persons to-day, it may be truly said that the death blow was given to reliance upon superstitious cures when that greatest physician of antiquity, Hippocrates, showed that diseases depended upon physical causes which may be discovered, understood and in many cases removed or conquered. He taught that disease was due to an improper balance of the four humors of the body, and was caused by seasons, climate, environment, diet, exercise, etc. In thus directing men's minds to a natural cause of disease, he gave the great impulse to the study of rational therapeutics. He himself introduced or at least used the dietetic treatment which has been a favorite medical resource ever since. We have sought to strengthen the liver by eating liver, and the blood by drinking blood. We have fancied we could concentrate the virtues of a whole market in a few cans of patent food, and save sick nature a deal of digestive trouble while giving her better results, by artificially prepared peptones and pancreatic emulsions. We have analized the tissues and devoured phosphorous to make brains and iron to make strength. We have tried Schüssler's biochemical system, and provided the salt whose deficiency or bad behavior in some tissue has originated the disease in hand, trusting nature to assign our contribution to the organ in which it could do the most good.

Then some genius discovered that it devolves upon the physician to maintain the four humors of the body in proper equilibrium. From this idea arose the theory of plethora and the plan of treatment by bleeding, which had such an enduring hold upon the medical mind, but has now sunk to an obscurity which further investigation may determine to be not wholly deserved. Then followed depurition; and purging, vomiting and sweating are the items thought necessary for the recovery of the sick. That such results would follow the ingestion of certain substances must have been learned from the accidental swallowing of poisonous fruits and herbs, another possible way in which the plan of taking medicines into the stomach may have been introduced. One of the objects of the alchymists was to discover a substance which would cure every disease, and trying all the products of creation, they must have become acquainted with many emetics and cathartics even if they observed no finer effects of the drugs they sent into inoffensive stomachs in far from infinitesimal doses. Certain it is that at one time or another almost every substance to be found in the animal, vegetable or mineral kingdom, from the granite rock and upheaved lava to the parasites, moulds, pathological and putrefactive products, and animal excrements, has been swallowed as a medicine with results pronounced to be most gratifying.

But the alchymists could hardly have investigated the many substances they are known to have tested, without noticing at least that different drugs produce different effects. Armed with this knowledge, the various medical theorists, as they studied anatomy and tried to develop therapeutic systems from its revelations, had some basis for their arrangement of medicines into classes to suit their changing theories. Thus when health was thought to depend upon the "state of the juices" of the body, medicines were classified as solvents, expectorants, alteratives and the like. When all diseases are grouped as either sthenic or asthenic, medicines must be either stimulant or depressant—the former class including musk, volatile alkali, ether, opium, animal food, spices, moderate warmth, wine and exercise; the latter, blood-letting, purgatives, emetics, vegetable diet, sudorifics, cold, rest and abstenance from food. When disease is supposed to depend upon irritability of nerves and muscles, medicines rank as tonic, astringent, antispasmodic, emollient and the like.

But the progress in the study of medical re-

sources which these classification simply is inconsiderable in comparison with the strides that have been made since the general adoption of Haller's suggestion, that the action of drugs ought to be studied by careful and systematic physiological experiment. This idea, first practically and extensively worked out by Hahnemann, is now regarded by the whole profession as the only sound basis of scientific pharmacology.

But man in his fight with disease has resorted to many prophylactics and remedies not calculated for introduction into the stomach. Hippocrates himself taught that climate was a cause of disease, and hence that change of climate was a means of cure. This idea has never lost its hold upon the medical profession, and in its development we have sought to analyze climatic elements and apply such of them as the received theory of disease seemed to demand, to any given case at the patient's home. Thus we have oxygen and other gases in various combinations, condensed into receivers and dispensed for home inhalation. Small inhaling tubes are filled with salts and sold as "Italian air," not only for the treatment of bronchial and laryngeal affections, but also to enable singers to acquire such voices as have made Italy famous in the annals of music. Patients have been advised to frequent stables and gashouses for the purpose of inhaling the air; pine-needles and other fragrant substances have been made into invalids' pillows. It has been asserted quite recently regarding certain districts of London, where factories have introduced smoke-consuming appliances, that throat and lung diseases have noticeably increased. Treatment by inhalation has developed the idea of forcing into the intestines gaseous enemata. To the variations in atmospheric pressure noticed in different localities medicinal powers have been ascribed, and they have been imitated and modified in pneumatic cabinets.

Light and heat are climatic elements that have been used to restore health, and the plain sun-bath has been modified by the intervention of blue glass, while to various other colors, especially red and yellow, therapeutic powers have been ascribed. The Turkish bath has brought the torrid zone within easy access, while the Russian bath offers us a damp climate without chilling effects. Heat and moisture in various combinations, and applied by numerous methods, constitute the resources of the hydropathist, who usually calls to his aid that great clarifier of the atmosphere, electricity, now more and more relied upon to develop new life in bodies wasted by disease, worry and overwork.

Mother Earth herself has been utilized as a medicine, not merely in the form of mud baths, as applied in some hydropathic institutions, but *in propria persona* by the plan of burying a patient up to the neck in fresh earth to cure the effects of lightning stroke.

Man may be included among the therapeutic resources of our race, for the sick have called upon him not merely for his sympathy, knowledge and advice, but for something believed to be inherent in his body. The royal touch was an important medicine for centuries; mesmerism, under various names, has puzzled the profession and induced results satisfactory to many patients during generations, while old King David and Baron Rothschild are probably not the only ones who have sought new life and vigor from contact with the body of a young virgin.

The mind of the sick man ranks high both as a prophylactic and curative agent, never more esteemed than at the present day, when there are not wanting those who assert its power to heal the body of any and every ill to which flesh is heir. To it appeal is made when study, travel or entertaining diversions are prescribed, and also when faith, prayer, the so-called "Christian science," and spiritualism are the nominal curative agents. Art and especially music have ministered to the mind diseased, and aided it to effect a mind-cure of the sick body ever since the time when David was appointed court physician to King Saul.

Imagination has been a favorite remedy for many years, having been extensively used by various methods both intentionally and unintentionally. Bread pills have achieved results equalled by few other prescriptions, but their record seems likely soon to be matched by the wonderful powers discovered to reside in the high dilutions of ultra homœopathists. That the use of the latter has often occasioned an unintentional appeal to the therapeutics of imagination pure and simple, is shown by the results of very recent investigations in Germany, which proved that a large number of pharmacists in that country are in the habit of filling homœopathic prescriptions indiscriminately with blank sugar and alcohol. The testing of body temperature by placing a thermometer under the tongue proved in one case to be an excellent and curative remedy for paralysis, and it is well known that the cure of rheumatism by metallic tractors was quite as successfully accomplished when the tractors were made of wood, but only so long as the patients thought them to be of metal. A large fee through its influence on the imagination is often

a valuable consideration to the patient as well as to the physician. "Sympathetic cures" of wounds hardly fall under this head, for in that method—which consisted in the application of a salve or ointment to the weapon by which the wound had been inflicted—the physician required the injured part to be thoroughly cleansed and then left entirely at rest. In this way nature was allowed an opportunity to heal the wound without interference, and nature was a vastly better operator than the meddlesome surgeons who preceded the sympathetic curers; nor did she grudge to the latter the credit of which they robbed her.

Although the expedients of surgery and obstetrics cannot be examined within the limits of the present paper, surgical operations must be allowed a place among therapeutic resources, since removing obstructions, improving natural or providing artificial outlets from the body are methods that have often been tried for the cure of diseases, and mechanical appliances are among the most reliable and satisfactory of remedies. Even spectacles, by correcting deformities of the eye and thus preventing nervous strain, are held to have proved curative in headache and nervous dyspepsia; and respirators, supporters, protectors and devices of clothing must be ranked among prophylactic if not among therapeutic resources.

Exercise, athletics, passive movements, massage, jolting, many sorts of deprivations, rest more or less absolute, matrimony and vice are each entitled to a place in our list of remedies, but perhaps the strangest medical resource of all is disease itself. Without counting those cases in which pre-existing maladies have been cured by diseases accidentally contracted, as small-pox, which has cured both typhoid fever and catarrhal phthisis, there are a number of diseases which have been advised as medicines. Hemorrhoids and varicose veins have been induced for the purpose of curing insanity. Erysipelas has been engrafted in the hope that it would eradicate cancer; eczema has been used as a remedy for asthma, and strangest of all, since it is selected solely as a prophylactic, throughout the civilized world to-day the most intelligent persons are to be found deliberately mingling with their own presumably healthy blood a vile pathological product, the result of a loathsome zymotic disease in a beast or fellow-man, and doing it with the avowed intention of making themselves sick with a malady abundantly capable of destroying life and sure to depress the vital energies of the body perhaps permanently. They are not only doing this, they have passed laws in some of the freest States and are endeavoring to extend such enactments to others, compelling their fellows *nolens volens* to submit to this same infection, and all this in spite of the fact that proof after proof has been brought forward demonstrating incontrovertibly that this vaccination, as it is called, is utterly without avail in protecting either the individual or the community from the dreaded variola.

It would seem as if disease was the ultimate medical resource, but man has gone a step further, and appealed, if not to death, at least to apparent death as a cure. As a remedy for hydrophobia—not in the stage of fully developed convulsions, which are conceded to be incurable, but while the disease is latent in a person known to have been bitten by a rabid animal—it has been advised to submerge the patient in water until he has ceased to struggle and is actually drowned, after which he is to be resuscitated by artificial respiration. This is probably the ultimate limit beyond which medical investigation is not likely to be fruitful of results.

In studying man's efforts to find an antidote to disease the singular things are that his hope and credulity have been so perennial; that his faith in drugs has led him repeatedly to poison himself to death, while blindly charging the tragedy upon his innocent disease—a thing that has been done to such a fearful extent that many eminent physicians have said that medicines have done more harm than good to the race; that he has so often rediscovered an old and abandoned expedient and trusted to it as something new and promising; and that he has so uniformly insisted upon finding some one resource or class of resources that should meet all requirements. Not content to let one case be cured by purgatives, another by homœopathy, another by the water-cure, and another by "Christian science," he has insisted upon treating all cases, all diseases and all individuals by the method in favor at the time, and in denouncing all other methods as valueless or damaging. But perhaps the most singular thing is the persistence with which he has kept his eyes fixed on externals, and preferably on remedies rather than prophylactics, and has refused to avail himself of the power within, which a loving Heavenly Father has provided to withstand and conquer disease. The man who asks a physician's advice looks aghast at the idea of paying a fee if no medicine is ordered. He is willing to take anything prescribed by the doctor, the druggist, the astrologer, the priest or the old wife, but not to trust the *vis medicatrix naturæ* divinely implanted within him.

XUM

Self indulgence has ever been the prime obstacle in the path of sanitary science. To-day, when that science has reached its furthest advance, popular interest in it is concentrated upon its efforts to destroy bacteria, to shut out sewer gas, to purify drinking water and to quarantine contagion, and hears languidly or not at all its indictment of tobacco, gluttony, drunkenness, luxury and laziness. Most men prefer to see the lancet transfer reeking filth—dignified by its Latin name of vaccine virus—to their own and their children's veins, rather than deny themselves the beer, pork, pudding *et id genus omne* which make small-pox possible. And most women are better pleased to dose themselves, and allow gynæcology to rank as the most profitable medical specialty, than to eat, dress, breathe, exercise, sleep and rear children on nature's plan. So long as these things are true, so long we may expect to see additions made to the pharmacopeia; but when the last resource is exhausted, the last remedy found, it will still be true, as ever before, that the best antidote to disease of whatever name is to fear God and keep His commandments.

THE MOST MAGNANIMOUS AND ADMIRABLE OF LUNATICS.

By C. A. F. Lindorme, Ph. D., M. D.

IT was, forsooth, a dazzling aspect when, after a tournament, the victorious champion came forth and selected among the gentlewomen present the Queen of Beauty, elevating her, above born princesses, to the highest social station for the time being! Curious blending of principles of equality and of the priority of personal virtue, with the axioms of congenital superiority and the prejudices of rank and offspring! And no less eccentric the co-existence of unbounded roguery, based on the bare fact of the prevalence of brutal power, with the most exquisite rule of honor and moral dignity, binding the rogue even! But thus was chivalry.

Its time had passed; where the lance reigned centuries ago, the plow had succeeded, and though the cherishing of war was far from being obsolete, the blast of gunpowder was fast decreasing its romance.

It is when the dim twilight of remoteness is settling upon history that historians revel in their pretended privilege of story telling, and chivalry with its extravagant underground granted ample scope to the most proficient inventiveness! This the inventive proficiency took advantage of, and books of chivalry were written which out-heroded the most preposterously enhanced records of chivalrous valor and achievement.

A lie is a lie, to the one as much as to the other, and no more. But its effect is different, according to the person to whom it is told. Seething proclivities in one brain will with credulity meet half way its delusive purposes, while sober scrutiny in the other will bar all persuasiveness at the outset, and the cause, or rather the faculty, of the whimsicalities of the former is not in the brain itself. Stupidity and its want of discrimination may be the fertile bottom of credulity. But the latter is compatible with the highest grade of intelligence; it is working then in the *velle*, not in the *posse*, of the cerebrum. Poets formerly, being led in their judgment by their personal feelings in vivid self-consciousness, said its seat was the heart.* We physiologists maintain it is the ganglionic nervous system.

Woe, in a world like the one we live in, to the owner of a generous sympathetic endowment. Its urging on of the encephalon to action, and the cerebrum to imaginative construction, places him in a constant turbulency of soul and an imminent danger of turbidness of the intellect.

This the hero of the celebrated work of Cervantes experienced when the books on chivalry fell into his hands. Although of an exquisite intelligence which ought to have been proof against incitement by lies of so coarse-grained a structure as those told in the "tales of auld," yet thus was the mood of his active mind that all searching scrutiny of the intellect was buried in the headlong priority of his generous propensities, and all prudent preparation for reasonable action in the furious impetus of his vainglorious emotions. There was wrong in the world, and there were evil-doers who were allowed to indulge in their nefarious trade without meeting the deserved punishment, and then there was knight-errantry which offered a means of correction, a ready method of redress of all species of grievances, than better nowhere presented itself; and last, not least, there was Alonzo Quixana, with his heart full of ardent desire to succor the afflicted, and to come to the rescue of the distressed; could he refrain from stepping forth as the corrector of grievances *ex-officio?* Was not he surnamed the good by all who knew him in his township? But how poor a trophy for such a gigantic ambition to do the good as his was! How trifling a pittance of fame for his thirst of world-wide reputation and renowned celebrity!

* "In aught that tries the heart how few withstand the proof!"—Byron.

It is a notorious fact that off and anon out of a most outrageous burglar is made a most virtuous detective. And if an analogy of this metamorphosis holds good, we may claim that if our Alonzo Quixana, instead of a country gentleman with rural pursuits, had been made a man of the robe, judge or priest, he would in a systematic study have learned to moderate and modify his ardent desire of active interference in the practical morals of this globe, and would have succeeded, like others, to gain satisfaction by moderate participation in the glory of interfering action. But being mentally penned up in the narrow circle of agronomic aims, there was neither in his education nor in his surroundings anything to methodically border by reality the fictiveness of his immagination, and rudderless on the expansive ocean of the lies of knight-errantry it went wild with his reason, and put his intellect at the mercy of his corruptedly self-willed fancy.

The times of knight-errantry had passed away. But they did not lie so far back in the abyss of remoteness as to put all individual memorials out of question. There was yet an armor which his greatgrandfather had worn, and although it was defective, the habit to look at such military array was sufficiently protracted to suggest fit means to supply and mend it, and when our eccentric by trying it on had heated himself into the climax of his frantic alienation, he removed the last object, at which, as a stubborn fact, his reasoning powers might have hurt themselves anew into a hold upon the pushing agencies of his excited mind; he assimilated its image, and the engrossment with it of his person, with the extravagant course of his ideas, and boldly one early morning he rode out for adventures on his year worn stallion, giving this the name of Rozinante, and himself that of Don Quixote de la Mancha.

When our knight started on his trip of self-styled redress of grievances, it was not yet the time of mammoth hotels, with steam elevators and mysterious little knobs serving in place of bells. But civilization had so far changed the aspect of things as to place foremost among the requisites of adventurousness a wallet, clean shirts and money. Don Quixote had set out without anything of the kind; in his books on chivalry, in connection with knight-errantry, he had never read of objects of so subordinate a character! Knights-errant, wherever they came, went scot free! and the obstinate consistency of his frenzy, which metamorphosed every hostelry into a castle, helped him out, indeed: The inn which was the first to receive the honor of his gratuitous visit was ruled in a sympathetic spirit, and the owner, instead of imposing upon our lunatic the soberness of reality, humored his fancy; in his fictitious quality of governor of the castle he satisfied our fastidious Don Quixote by dubbing him in due form Knight; but for cases which might turn out less fancifully, he sent him home to get him clean shirts, money and some eatables.

Don Quixote did what he was bid to do, although a lunatic, because he was bidden in the corrupt style of his own perversion. He not only made a provision of coin by mortgaging some land, but in one Sancho Panza, with an ass to ride on, he procured him also a squire, and some propitious morning off he went again, all the lamentations and remonstrances of his family, a young niece and an old housekeeper, notwithstanding.

There has been, in literary essays and history, much pertinent talk about the astonishing minuteness with which great minds master a mass of divers knowledge, proving specialists in almost every branch of it, and Shakespeare used to be cited as the most extraordinary example. With regard to psychiatric science, Cervantes is one more instance of an expert, without, seemingly, any professional education or instruction. And this holds good with reference to the funniest and most popular of all the exploits of Don Quixote, viz., that of the windmills, which he mistook for giants. It seems burlesque to presurmise such a *quid pro quo*. Our knight-errant, in his speeches, is sometimes so "awfully reasonable" that in him a mistaking of windmills for giants would appear to be out of the question. But if we bear in mind the clinical fact that the lunatic sees not according to the sensual impressions in his eyes, but according to what out of these impressions his frenzy is pleased to make, and that in the brain the fanciful image is ready before the senses were given time to fully present the real state of things, thus securing to the subjective the priority over the objective, it is no more surprising that out of windmills he made giants, than that out of a carrier's wench he made a beautiful damsel, visiting him in amorous commiseration at his lowly couch, nor that, instead of onions and garlic, he smelled her breath as exhalation of liquid amber. We need not lunacy for the exhibition of similar examples. So makes Goethe Mephistopheles say to Faust when tendering the beaker from the witch's cauldron:

> A Helen will be to thy notion
> Each wench, when thou hast drank this potion.

And it is fully squaring with the laws of psychology that Cervantes leaves his hero destitute of experience by his experiment with the corn-grinders. The intellect of a lunatic like Don

Quixote is not degraded in its faculty, but disordered only in its function; it does not operate freely because of the vitiating spleenetic impressions of ganglionic origin, which, like in a vise, keep it turned off from operating according to its faculties, and the vaingloriousness that prompted the assault, prompted also the explanation or excuse of his defeat that suited him: His enemy, the sage Treston, wanted to deprive him of the glory of his victory, and by witchcraft metamorphosed the giants, which there had been, into the windmills which there were now. But our lunatic's mind had recourse to such hob-goblin phantasies only when there was no other way to serve his purpose, and it is a very remarkable psychiatric nicety in Cervantes that he lets Don Quixote enter upon his adventure with the lions without any of his pranks of enchantment. When he challenged the encaged monarch of the desert, and compelled the warden of imprisoned ferocity to let it loose upon him, there was for his madness sufficient grandeur in the feat as such without any artificial enhancement, and it is exceedingly correct in Cervantes to not here mark the madness of his hero by intellectual deficiency. He has the insight that he enters upon an uneven contest, as well as his Squire, Sancho Panza, and his traveling companion, Don Diego, who ran away; there is no hallucination which changes sensual reality to his mind, to him the lions are lions as well as to any of them. But the unevenness of the contest is precisely what he wants; the frenzy which keeps his intellect prisoner is the extravagant fancy to accomplish feats which go beyond all expectancy, and above all heroes that ever were will secure him the glory of superiority.

And with a fine trait of psychology Cervantes lets him come out of the predicament. The sober-minded animal, made frugal by good nourishment, on surveying the lank limbs of Don Quixote and his Rozinante, turns back again from the glaring sunshine, and lies down in his shady dungeon with utmost indifference against the laws of knight-errantry, leaving Don Quioxte the imagined victor of his majestic royalty, and accessorily gives here what we may call a pictorial masterstroke of Cervantes, viz., the indication that in an off-hand feat so often are effaced the landmarks of phrenetic temerity and wise audacity. "No sober man would put himself in danger for the applause of escaping without breaking his neck." —(Dryden.) But if the same poet says: "Here patriots live, who for their country's good in fighting fields were profligate of blood," this profligacy and the country's good which was reputably its motive, will, on close inspection, prove as hairbrained a madness as any of the deeds of Don Quixote. These as well as the immoderate deeds of high policy are born out of ambition, that turbulent feeling which "raises a tumult in the soul, and puts it into a violent hurry of thought" —(Addison), in which nations often exhibit all the signs of individual craziness.

Cervantes most judiciously perseveres all through his work in depicting the mental disease of Don Quixote as only secondarily cerebral. The ailment is primarily ganglionic, and an intellectual deficiency is, therefore, not observable, except with reference to the particular relation which is under consideration, viz., the mad prank of vaingloriousness by knight-errantry. Our knight exhibits most wonderful knowledge and judgment in all things outside of his weak point, and to others gives good counsel in what he fails himself. To the lad in the show of "Master Peter" he utters the juridic warning, "I can tell you there is often much need of formal process and deliberate trial to come at the truth." But he himself, without process and any method of investigation, liberates the boy whom his master set about punishing for laziness. And why? Because of infallible knight-errantry. "Who was the blockhead?" he asks the members of the *santa hermandad*, "that signed the warrant for apprehending such a knight as I am? Who was he that knew not that knights-errant are exempt from all judicial authority, that their sword is their law, valor their privilege, and their own will their edicts?" But have we not had in the papal claim of infallibility an instance of lunacy among those who pretend to be sound of mind?

Don Quixote, in his speech at the wedding of Basilius, hinted to this the advisability of sober economics. But he himself is given to the principles of the Castilian poet:

> "Through these rough paths, to gain a glorious name,
> We climb the steep ascent that leads to fame.
> They miss the road who quit the rugged way,
> And in the smoother tracks of pleasure stray."

The case of lunacy of Don Quixote is one of boastful vaingloriousness, it is true. But his eccentricity is one of which we must express our deep regret to never meet with in our own days. His was the overflowing goodness, the exuberance of self-denying virtue, which, entering into action, in its extreme landed even in injury done to the very individual he wanted to help, but which, taken by itself, was the most laudable fault that could be found. "Strange unusual blood, when man's worst sin is, he does too much good."—(Shak.)

Our time does not produce such a frenzy, its egoism is so hardened, has so entirely become the

second nature of society, that reason and selfishness are identified, and, as a matter of course, the degree in which a man may claim the ownership of a level head, furthest off from all and every taint of craziness, is the one who displays in the most talented manner the mark of our age, egoism. And this is madness, the very madness the most prominent symptom of which is in the tenacity with which those who are taken with it persist in the belief of all fools that they alone be reasonable; such a one

> "With a crafty madness keeps aloof,
> When we would bring him on to some confession
> Of his true state."—*Shak.*

The madness of Don Quixote was not in the idea, but in the way to realize it. The idea was that of the Christ; it was the sacrificing of the Ego for the benefit of mankind. And if the hunk of the enlightened nineteenth century thinks, he may, from the standpoint of superior intellectuality, laugh at our knight-errant, because of the mad pranks of his phantasy, he is very much mistaken, if his claim of superiority refers also to the ideal and hypervirtuous emotions of Don Quixote. This was madness, I admit. But the absolute absence of transgressively benevolent imagination in the boundless egoism of these days is madness again, and madness of far more serious a kind than that of the erring knight and knight-errant of La Mancha; it is not only, in place of the noble elevation of soul in this, denoting a mean mind, but it is socially more dangerous, fostering as core and essence of the human nature, centrifugal and atomizing faculties which tear the bonds of human intercourse, and undermine the cornerstones of the commonwealth:

> "Who can all sense of others' ills escape,
> Is but a brute at best in human shape."—*Tate.*

and a greater poet says:

> "And wiser he whose sympathetic mind
> Exalts in all the good of all mankind."—*Goldsmith.*

and the psychiater says: "And poor, and sickly, is the reason that reasons otherwise, all selfish reasoning of our hyperselfish time notwithstanding; this selfishness is OUR age's madness, and a dangerously epidemic one at that."

In the course of his novel, Cervantes exhibits also a couple of simpletons who undertake to convince Don Quixote that his madness is nothing reasonable, for of no more nor less than such a purport is the trial to talk a lunatic out of his craziness. A man like Don Quixote is of a sufficiently keen understanding to see the absurdity of his proceeding, but he don't want to. And similarly with most cases of lunacy. If it was not but for the cerebral deficiencies there would not be many of them. But the healthiest brain can be subjected to a sickly ganglionic diathesis. And in the case of our knight-errant, Cervantes depicts this in a most hilarious way, Don Quixote himself making fun of his eccentricity. Resembling a play, in a play, he gets it, in his madness, in his head to run mad, and this on account of his ladylove, Dulcinea del Toboso. And when his squire objects that she never gave him occasion, he answers: "There lies the point, and in this consists the refinement of my plan. A knight-errant who runs mad with just cause deserves no thanks; but to do so without reason is the point—giving my lady to understand what I should perform in the wet if I do this in the dry."*

A wonderful sagacity Cervantes exhibits by the way in which he lets his hero recover from his madness. He employs as it were a retrograde process, letting Don Quixote get off his disorder in the same way in which he got at it. The characteristic of his madness is his punctiliousness as to points of knight-errantry. This his friend, the bachelor Sampson Carrasco, takes advantage of; he puts on chivalrous equipage and challenges Don Quixote in single combat. He had done it before, and had been defeated; taking it too easy, our knight got the better of him. But the second time, mounted as he was on an animal ten times the superior of poor Rozinante, he won the battle by simply overrunning this ruin of a horse, and down with him came our knight, vanquished in honest fight, after the strict rules of ancient chivalry.

If the bachelor who wanted to benefit his townsman had been able to foresee the effect of his stratagem, he would have bethought himself twice before using it. Bereft of his cherished fancy, to use knight-errantry as a means to achieve fame, our chivalrous Manchego was bereft of his better-self, and his overthrow in stylish encounter by another knight was such a bereavement. An appeal to his reasoning could not persuade him. When his niece harangued him, "alas! you are so infirm, and pretend to make crooked things straight, though bent yourself under the weight of years," he did not listen. But the clash with his dear Rozinante went deeper; it was, as it were, a direct ganglionic experience skipping the cerebro-spinal nerve-centres, and gave him a shock which allowed his intellect to gain the conviction that he was not the man to do as he proposed. On his return home, after the encounter with the herd of hogs, "Heaven," he says, "has inflicted this disgrace upon my guilty head; it is no more than a just punishment that dogs should devour, hornets

* Ed. of Chas. Jarvis, Esq.

sting, and hogs trample on a vanquished knight-errant."

With his delusion that as knight-errant he was a miraculously powerful man, the pluck was taken from him which enabled him to perform feats above his force, and, his nervous stimulus having vanished, he soon lay there, bedridden, the broken up result of physiological over-exertion. But before, on his death-bed, recovering his passing reason altogether, assuming again the simple language of Alonzo Quixana, the good, there was a diversion of his madness in the veleity to turn shepherd; it was the last flaring up of extravagance, the perfect cure of which could never be by sudden influence of understanding, but only by degrees in a restoration of the healthy function of all organs of the body, this multiple and complicated instrument of the mysterious and yet to every one who has any of it so exceedingly well-known faculty, called the human mind.*

CHRONIC DISEASE OF THE SCROFULOUS TYPE.

By Geo. H. Taylor, M. D., New York.

Article III.

MEDICINAL REMEDIES.

THE necessary inference from the foregoing exposition of the nature of the scrofulous type of chronic affection is that medicaments, however selected, combined and prescribed, are essentially and only palliative. There doubtless are medicinal substances which tend to hasten normal tissue metamorphosis, just as there are others credited with producing an opposite effect. Some medicinal effects are due to the intervention of the nerves; others to the chemical or disintegrating power of the medicament on the organic substance, structural and non-structural.

If it be conceded that the remedial requirement be simply that of superinducing resolution of nitrogenized or indeed *any* ingredient of the vital organism into an exit form (no other can be natural or desirable), then the question is less whether this purpose may be secured, than whether it can be secured continuously by medication. Oxidation is increased in a variety of widely differing medicinal ways; but the capacity and power of the organism to *continue* this most desired of results, so far from being also increased, is actually diminished by the so-called remedy. No power is conferred on the vital mechanism, and the vital mechanism is the sole ultimate reliance. Even though the artificial chemistry resulting from the introduction of drugs be extended to the incipient, or even developed tubercle, to the swollen glands, the decaying bone, or whatever other form the morbid manifestation may assume, still the actual need is unsupplied, the controlling morbid cause remains untouched. The vital cells may become temporarily more active by unnatural causes of incitation, but it has not been satisfactorily shown that their capacity for the execution of normal function can be permanently enlarged by such means. When individual function is submitted to tests of this kind, it is found that the capacity deteriorates under this class of influences. Normal development and normal power requires normal incitation to functional activity. The transitory nature of medicinal remedies is not changed to permanency by frequent repetitions; nor is the source of the actual morbid development approached more closely by persistency of administration, because it is not more of the remedy, but a different kind that is demanded by the nature of the case.

It hence follows that for these cases, other than medicinal incentives are necessary to secure the physiological effects which are due. There can be none comparable in power, persistency and efficacy to that employed by nature, and inwrought in the constitution of things. That which is effective for maintaining health is equally trustworthy for its restoration. To employ the same kind and degree of the pathological incentive in chronic ill-health that is spontaneous in good health converts the former into the latter condition, and fulfils the medical requirements.

The fundamental sources of scrofulous manifestations reside in defective physiology, and can be reached remedially only through physiological channels. The perfected waste normally resulting from physiological activity, in which muscles bear a leading part, cannot be otherwise produced, because no other incitation is adapted to that end. Other remedies are administered to the hopes and to the fears of the sufferer, rather than to the actual sources of the disease. Their use is dictated by an inadequate consideration or incompetent analysis of the pathology of the scrofulous condition, rather than any substantial basis of science.

REMEDIAL DIETETICS FOR SCROFULA.

The attention of chronic invalids is in these days called to a great variety of specialized food, whose use is very pertinaciously urged as a superior remedial means. Commercial interests are very palpably manifested, and these appear to unite with professional recommendations, making

* I am indebted to Chas. Jarvis, Esq., for the translation of "Don Quixote," published by Bedford, Clarke & Co., Chicago, which I used.

together a very powerful appeal to the chronic sufferer.

By the dietetic plan as usually presented, the proper selection and preparation of the ingredients of food is claimed to be based on some authoritative knowledge as to just what is needed by the vital system as betokened by the nature of the manifestation, the manifestation also indicating a deficiency of the special ingredient in ordinary food. By the dietetic plan it is further assumed that the vital system will employ the improved food, if it only be made to reach the mass of the blood which pervades all its parts. Or, stated more directly, the *choice* of nutritive material, the sources of structure and of energy, is relegated from the vital system, and its organized mechanism of digesting and expending, to the astute brain of the dietetic prescriber.

These claims are not a little confusing to the chronic sufferer, whose desire for health causes him to grasp eagerly at the flimsiest shadows of hope, with little reference to their basis. It is therefore important that claims so intimately connected with the welfare of the public be inquired into.

Remedial dietetics, as usually understood, have the great advantage of plausibility. The plan referred to appears to affiliate with hygiene; is indeed doubtless often mistaken for hygiene. It responds to a not altogether unwholesome prejudice against drugs. It appears to appeal something like the following to the understanding: The organized structure of the body in all its parts is derived from food; its activities are supported by food; the nervous and muscular energies are provided in food; what, then, is more reasonable than that the variations of health, good and ill, depend on corresponding variations of food? that derangements creep in through carelessness and ignorance respecting food, and that bodily ills are susceptible of rectification through requisite knowledge and care respecting food?

This comprehensive view very nearly installs dietetic preparations as the creators of health. The nutritive ingredient lacking in ill-health needs only to be supplied by proper selection, and presolution renders its introduction from the digestive organs nearly compulsory, and vital consequences follow.

In conformity with such views, artificial food preparations are provided, containing an unusual amount of salines, as beef juice and other meat preparations; or an increased proportion of albuminoid and other nitrogenized constituents; or of non-nitrogenized ingredients, as the malt preparations, soluble starch, the varieties of sugar, including alcoholic liquids; or an increase of oleogenous parts, supplied by cod liver oil and the substitutes therefor.

The validity of the above and other assumptions respecting prescribed food is greatly impaired by considerations which follow.

Natural laws prohibit other ingredients than those found in ordinary food from engaging in vital service. Art is therefore strictly limited to changing the relative proportions of these ingredients, and to introducing them, independent of the natural digestive process.

It is obvious that an increase of *one* ingredient is only another name for diminution of others, although this consequence and its probable effects appear to escape the attention of the dietetic prescriber. For, whenever it happens, as under the circumstances it frequently must, that some omitted ingredient is the one specially required, the nutritive value of the food preparation is practically diminished instead of being increased. That no point in regard to the special ingredient required in different cases is settled is proved by the fact that a preponderance of ingredients exactly opposite in quality, is urged by different prescribers. It follows that prescribed diet, in most instances, practically restricts the amount of food when its increase is proposed. The patient is accordingly the recipient of whatever advantage may arise from the practical reversal of the intention of the prescriber.

The remedial use of dietetic preparations appears to be based on the assumption that the vital organism *employs* nutritive substances to the extent and in the proportions ingested, much as plants grow in proportion to the richness of the soil.

There are so many and such obvious obstacles to the realization of this and kindred suppositions that they are very nearly self-refuting. Food may escape digestion; or, being digested or *pre*-digested, may fail of absorption; or, having entered into practical contact with functioning organs, may fail of being employed in functioning acts. These impediments, especially the last, are extremely patent in illness. Indeed, the essential factor of scrofulous invalidism has in previous pages been shown to consist in defect of function, in consequence of which nutritive structural ingredients remain unemployed.

It necessarily follows that to ply the incapacitated expending organs with unusable materials, is heaping insult on injury, in spite of the dietetic possibilities of the material, *if* used. But it

has never been shown in any conclusive manner that nutritive ingredients, even though in immediate contact with expending organs, are capable of assuring, inaugurating, engendering or compelling any form of function, whereby such substance becomes normally removed or expended. And whatever is true of nutritive activities in general has equal application to the particular ingredients adapted to functional needs; and this principle applies alike to food prepared and unprepared.

Physical considerations tend to the same conclusion. It is impossible to understand how the *entrance* of nutritive substance upon its vital career can exceed the rate of its emergence therefrom; or how the rate of oxidation or other mode of resolution of the same, which rates are connected solely with expenditure, can be controlled or even influenced by quantity. The question of storage and of fat production is not involved; nor do these concern the scrofulous invalid, whose organism is notoriously disabled as relates to power of changing unfunctioned material to fat.

That is a mistaken view of nutrition, leading to injurious consequences, which regards it as being concerned wholly or chiefly in supplying and appropriating food. The act is complex, having mutually dependant parts; the first of these is controlled by the last. Whatever the ingredient, the actual appropriation can never exceed the actual expenditure. The one is necessarily the measure of the other. It follows that the *incitation* to nutritive acts in all their details must arise from the expending acts, and not from those connected with supply. And what is true in general, is equally so of the particulars relating to special ingredients. Such portions and such quantities are taken up by expending organs as are demanded for the current manifestations of energy, not because expenditures ought to occur, but because they actually do occur. Nutritive ingredients are otherwise purposeless at every point; their presence is far from assuring a vital career, and are liable, notwithstanding excellence of quality, to support pathological in place of physiological processes.

Energy is expended and nutrition superinduced through incitations derived from an appropriate nervous mechanism. The incitation superinduces a train of physical events, mechanical and chemical, ending in transformation of the nutritive substances to its exit form, as has been sufficiently explained. But the use of the dietetic preparations and the nutritive provocatives above considered, implies a reverse physiological order; that uses and expenditures have little, while supplies have nearly everything to do with nutritive processes and its results.

Although it is possible for fluidized and specialized food to pass from the digestive cavity into the blood in the absence of legitimate demand proceeding from the expending factor of the nutritive act, no benefit is assured thereby. In fact, it is herein that lurks danger to the feeble and scrofulous. To facilitate, not the ingoing but the outgoing factor of nutrition, is, as before shown, the therapeutic requirement.

In this connection further facts relating to digestion in health require to be set forth, for the benefit of the feeble.

The food of animals is in general of a character *requiring* digestion. The law enforced by this fact is easy to understand. Such qualities and quantities of the contents of the digestive organs as are demanded by current needs are taken therefrom by the digestive act, and no more. If in health there be a residue, it remains insoluble, and is therefore harmless.

The nutritive needs arise in the organism at large, rather than in the digestive organs. The digestive secretions are derived from the blood which courses throughout the system before reaching the secretory organs. The blood represents the supplies, but also in equal degree the deficiencies of the organism and its parts, and is charged with the duty of responding to these needs.

In all healthy nutrition a selective and determinative property or power on the part of the vital organism is clearly implied. This is shown in health by incapacity to digest and to absorb when the organism is in a state of repletion. It is further shown by the fact that of the abundance *ingested* only so much is *digested* as is, on the average, required. The measure of digestion and therefore of the current needs is in the secretions. The need, the selection and the transfer appertain in health, not to the food, but the vital system, and cannot to any considerable extent be influenced in health by food. The use of predigested and fluidized food ignores the law or principle above stated, and would soon work dire disaster to the health of the scrofulous class were there no counterpoising considerations.

It therefore appears that digestion involves much more than the rendering of food capable of passing inward from the digestive cavity. Digestion has an *excluding* as well as an *including* function. The importance of the former is at least equal with the latter. The power to exclude is indispensible to the preservation of the vital integrity; for the rejection of superogatory and

therefore harmful ingredients is as necessary as the selection of usable ingredients. Digestion presents a barrier which, till circumvented by art, is nature's trustworthy means of both introducing needed supplies and excluding the needless and injurious.

Exclusion is simply omission to digest, and is effected by withholding the secretions essential for that process whenever digestion would prove injurious to the system. This important negative function acts in effectual opposition to the temptations of abundance, and of an unchastened appetite, liable to prove false to its trust; and is of special interest to persons of enfeebled power and the scrofulous.

So far, therefore, as the much-vaunted preparations of food evade a primary law of the animal economy, and introduce food from the digestion cavity without the preliminary of digestion, they are liable to prove injurious to health. This depends on the extent of the current requirements of the vital system. But for persons already in poor health, whose power of transforming, especially the albuminous contingent of food, such preparations are disadvantageous to the extent of peril. The probability of untransformed residuals, liable to promote scrofulous manifestations, are palpably increased by their use.

The difficulties and objections attending the remedying of scrofulous affections by dietetic means, so far as this means consists of ingredi ents proportioned by art and especially of liquid preparations, may be briefly stated.

The claim of advantages from artificially proportioned ingredients of food is sophistical, for increase of any one ingredient may as truly be stated as decrease of one or more of the other ingredients; and because it cannot be certainly known that some excluded ingredient may not be required.

Fluidized preparations of food are attempts to evade the law and circumvent the purpose of the *excluding* function of the digestion process, a necessary safeguard in all animals.

Artificially prepared and introduced food contravenes the automatic regulating and proportioning function of the vital activities; the organism is compelled to receive supplies irrespective of its current functioning activities.

The same device prevents mastication, insalivation, and the introduction with food of the air which physiologists agree is required by a natural and wholesome digestive process.

It also obviates action and superinduces debility of the muscular walls of the digestive organs.

The same device obviates also the need for, and therefore the provision of digestion secretions. The very large amount of albuminoid material due in the digestive secretions is therefore compulsorily retained in the general tissues and fluids.

The consequence is that further elaboration and advance of nitrogenized ingredients through their return to the digestive cavity is prevented, and the detained ingredient becomes fit material for tuberculosis.

Digestion is properly one of the many phases of chemico-physiology, to be promoted, not obviated. To supersede this process is to repress a most important phase of organic physics. Such repression cannot but be injurious, and the more so, since the paramount defect consists in the low degree and incomplete results of physiological chemistry, which scrofulous affections incontestably present.

The above specified objections to specialized, liquid and predigested food do not apply to the following classes of cases, for reasons too obvious to require extended explanation. Fluidized and otherwise prepared food is proper in convalescence *after* acute diseases, fevers and inflammations; after sudden losses of blood or other fluids; and in such emergencies and critical periods as naturally require assimilation to be temporarily in excess of expenditure.

A clear intimation of what *is* suitable food for the scrofulous is obtained by an understanding of what is *not*. These cases are best served by a solid diet of what may properly be called bread and meat. The subject is at liberty to select from the wide variety naturally comprehended by these terms. These articles contain soluble ingredients in sufficient proportion to serve the gustatory sense, and to satisfy the immediate demand of the organism. The various qualities of dietetic ingredients are secured in needed proportions by the automatic selection of digestion. What is not needed is left, what is needed is accompanied to its destination by the digestive secretions. The source of the secretions in the organism, and their return to functioning parts with the products of their action, is an undisputed principle of physiology.

The natural law or principle that the vital organism selects its support, as regards both quantity and quality, is further illustrated and enforced by the evident parallelism of the respiratory with the digestive function. For although unlimited oxygen is presented to the blood in the lungs, this fluid takes therefrom just what is required for current needs, and no more. Only by taking unfair advantage of the respiratory mechanism by some device of art can an injurious excess of oxygen be forced upon the system. The blood

maintains its proper degree of saturation with oxygen in spite of the extreme variableness of the use of this element by the system. This demonstrates the existence of an automatic regulation of supply to needs quite independent of art. The very palpable fact now presented indicates a corresponding natural self-regulating power in the introduction of alimentary supplies. It only requires that this function be recognized and trusted to secure the therapeutic advantages flowing therefrom.

A PROVING OF QUININE FROM AN OLD-SCHOOL STANDPOINT, ACCORDING TO THE METHOD OF HAHNEMANN.*

By Egbert Guernsey Rankin, A. M., M. D., New York.

QUININE is so largely used empirically even by members of our own branch of the profession that its action, according to the principle of "similia," is frequently overlooked. A proving of this great drug from an Old-School source is certainly something of a novelty, not that the results of the experiments present anything different from those which may be found in our own materia medica, but the mere fact that such an experiment was made by the former opponents of this method is in itself but another evidence of the more general adoptation of the practice of the New School on the part of the Old.

In the *Revue Homœopathique*, Brussels, December, 1887, there appeared an article on this subject, a translation from the German by Dr. Chevalier, of Chárleroi, Belgium. Dr. Chevalier says:

"In the archives of Virchow" De l'Anatomie de la Physiologie pathologique et des cliniques Medicales, pg. 109, Vol., 1887, we find an experiment which interests us to a considerable degree, both as physicians and as believers in the principle of similia. The work is entitled, "Study of the Action of Quinine on the Healthy Man," by Dr. Hugo Schulz, of Griefswald. In his preface the author speaks of the advantages as well as doubtful aspects of medical experimentation on a healthy subject, especially dwelling on the point of advantage of gaining our knowledge of drugs from experiment on man over that on animals alone.

In the second place, he opposes the massive doses which have been employed in these experiments, and which have produced surprising effects by their intensity, but not by the exhaustion or expansion of their principal drug action. Dr. Schulz also condemns the experience obtained by toxic doses as only producing an intense but transient action, and recommends small ones in their place.

Experiments were made with all the minutiæ possible on six gentlemen, students of medicine. The pulse and temperature of each were noted three times a day for six days before commencing the proving." It is interesting to note that in the case given in Dr. Chevalier's translation there were slight variations of the temperature even in apparent health. "They commenced by taking about 8-100 gr. (.005) of chlorhydrate of quinine; the dose was increased so they took from 3 to 7½ gr. (.2 to .5) as maximum doses."

The experience of one of the six provers is given as a specimen. Daily notes were recorded giving the symptoms in full—supro-orbital neuralgia, nausea, vomiting, præcordial distress, sense of great prostration, malaise details of which it is scarcely necessary to report here. Suffice to say, a long train of symptoms for which quinine is daily prescribed.

The drug was administered from July 11th to August 12th, and then discontinued. The provers continued to suffer from some of the characteristic symptoms, namely, periodical supra-orbital neuralgia and malaise, to such an extent even after the withdrawal of the drug, that he was obliged to seek relief, which he obtained from the administration of iron after the partial failure of arsenic. It is important to note there were but slight variations in the temperature during the proving; the pulse was somewhat accelerated.

However much the Old School may scoff at the principle of "similia" and methods of Hahnemann, they are slowly but surely adopting the same. It is a fact that no amount of denial or recrimination can efface. It is indeed a matter of common observation to see recorded in the recent literature of the Old School certain drug actions and certain therapeutic applications of the same, long ago discovered and set forth by Hahnemann and his followers, yet palmed off as something new.

It is hoped that as the barriers of prejudice and fanaticism are broken away, honesty and fair play may come to the front, so these new (?) methods and new (?) ideas may be duly acknowledged.

Formerly the teachings of Hahnemann were not even surreptitiously acknowledged; now that they are, let us hope that this sub rosa progress may be followed by a more open and manly course.

*Curieuses Experimentations de la Quinine Sur l'Homme Sain. Traduction du Dr. Chevalier de Charleroi, *Revue Homœopathic*, Bruxelles, December, 1887.

Therapeutic plagarism is continually practiced by the Old School. We, on the other hand, unsectarian in practice, unbiased by dogma or prejudice, are glad to learn any new facts that science presents and experience verifies, and in discussing the same honestly to acknowledge the source of our information, whatever it may be. Our Old-School brethren are also willing and eager to accept new facts supported by science and experience, and are also willing to credit the source from which they are derived *as long as the source is not homœopathic.* Then honesty and gentlemanly fair dealing disappear. The present generation has seen many changes in the relations of the two schools; so we will still hope for fair play.

CLINIQUE.

ON ANTISEPSIS.

BY ARTHUR T. HILLS, M. D.
Surgeon to Ward's Island Hospital and to the Home of the Good Samaritan, Diakonissen, New York.

IF we inquire into the history of the antiseptic treatment we must go back to the ancient practice of embalming to find its first systematic use. We follow it through the ages—the fishmonger to preserve his fish, the housewife her vegetables; we read all along of putrefaction, the Roman controlling fermentation of wine with pitch, the Arabian destroying putrescense with alcohol. These practices were the forerunner of to-day. As applied to surgery, antiseptic treatment in a restricted sense has been attempted at least two centuries. Surgeons of the seventh century even grasped the idea of the effects of putrefaction. In the sixteenth century Ambrose Paré demonstrated that a gun-shot wound was not necessarily a poisonous wound if protected from atmospheric influences. In the eighteenth we find many surgeons approximating nearer the present system of antiseptic treatment, but it remained for Sir Joseph Lister to systematize on a new principle, namely absolute absence of putrefaction ab initio. The problem Lister has solved is this: On all objects in the external world septic dust is present—on the skin of the patient, on the hands of the surgeon and his assistants, in water and air, and when a wound is made any introduction of this dust must be carefully avoided, as it provokes germination, and germination means pyemia, gangrene and septicæmia. Some kind of a dressing must be provided which shall prevent its passage in an active state and at each change of this dressing the problem is the same as at the time of the infliction of the wound. It is scarcely necessary to speak of the success of Listerism, as the hospitals of the entire world have adopted it, and the results are astonishing. Prof. Tyndall says: "It is a matter of surprise that the London hospitals have done so well and made so much progress." In private practice the record is the same throughout the world. The most experienced disciples of Lister do not now deem any wound too insignificant to be safe without treatment directed towards the exclusion of micro-organisms.

Formerly all operations were done under the spray of carbolic acid, which was usually done with steam, but this method has been almost entirely superseded by irrigation.

The antiseptic par excellence of early Listerism was carbolic ac., and many other agents have been experimented with, the outcome of which has been to establish bi-chloride of mercury as the leading germicide, as the one best calculated to insure asceptic conditions under a majority of circumstances.

Recent investigations have proven that the dry antiseptic gauze dressings of Lister are singularly faulty at best, unless used soon after being prepared. Consequently moist dressings made after new formulæ are supplanting them.

Experience has shown that the best dressings should possess the following characteristics:

1. They must be asceptic or sterilized.
2. Absorptive and moist.
3. Soft and pliable.
4. So prepared that the antiseptic used shall be of known strength. Each pound of cotton shall contain an exact measure of the antiseptic drug.

Schlange, of Berlin, has developed the fact that defects of considerable magnitude are to be met with in our supposed asceptic sublimate dressings. He has proven that all dry antiseptic bandages contain, without exception, more or less micro-organisms, which are capable of producing putrefaction, but that recently prepared moist gauze or gauze that has been rendered sterile by heat or boiling can be considered free from germ. Prof. Weir says, "unless this gauze is kept in a damp condition and properly wrapped up in an impermeable wrapper, such as rubber or gutta percha tissue, the bichloride will soon become changed into the comparatively inert calomel."

In the preparation of the gauze it is essential that it should be treated in the following manner:

1. Boil the fabric under steam pressure of 250°.
2. The antiseptic solution should be prepared with distilled water, to which is added the antiseptic with ten per cent. of glycerine, which is

added to keep dressing moist and prevent crystalization.

3. The temperature of the solution is then raised to the boiling point and the dressing dropped in. It is then put through a machine that dries it thoroughly. While still hot the dressing is wrapped in an impermeable wrapper.

In making bichloride solutions a compressed tablet has been devised, which is combined with tartaric acid or ammonium chloride, to prevent the precipitate of calomel and the formation of albuminate of mercury when the fluid comes in contact with the tissues. One tablet dissolved in a pint of water makes a solution 1-1000, which is suitable for irrigation in most surgical operations and wounds. They are very convenient for ready use, particularly in obstetrical cases, where its use has become so general. Sodium fluosilicate, the new antiseptic, promises to prove equally effective and much safer in obstetrics than the bichloride. It is but slightly soluble in water; a pint of water will dissolve about fifty grains, and it should be used in saturated solution.

Frederic B. Jessett, F. R. C. S., says: "I have for some time been in search of a substance for use during operations, which shall in itself meet all the requirements of antiseptic surgery. It appeared to me that in searching for such a substance out of the long list of antiseptics I should be guided to a very great extent at any rate in my selection by the following requirements, viz.:

"1. The substance must be proved to possess the power of preventing organic matters from passing into a state of putrefaction, and at the same time destroy any poisonous products which are generated thereby.

"2. It should be non-poisonous and non-irritating.

"3. It should not injuriously affect by chemical action surgical instruments that are brought into contact with it.

"4. Its composition should be of the simplest, and the price moderate, to meet the exigencies of hospital practice. Such an antiseptic, I have no hesitation in saying, I believe I have found in a substance named Sanitas, which is one of the pine products, and consists essentially of peroxide of hydrogen. camphoric acid, camphor, thymol and an oxidized oil containing a large quantity of camphoric peroxide.

"Before venturing to apply this substance as a substitute for other antiseptics, I examined the results of experiments made with Sanitas upon different substances.

"1. Respecting its power to prevent or arrest the fermentation of glucose, sugar, milk, &c.

"2. Respecting its power to prevent ammoniacal fermentation.

"3. Respecting its power to prevent putrefaction.

"These experiments taken from a large number made by eminent chemists seemed to prove conclusively the power Sanitas exercised in preventing fermentation and putrefaction, and, further, in its ability to arrest these processes when they had already commenced. A piece of beefsteak suspended in water containing one cubic centimetre of Sanitas oil remained perfectly sweet for thirty-five days, while a similar piece in water containing no Sanitas was putrid on the second day.

"The antiseptic power of Sanitas products would appear to depend mainly upon the peroxide of hydrogen which it contains, and which is generated in contact with air and moisture.

"Having thus fully convinced myself as to the power of Sanitas to prevent fermentation and putrefaction, and to destroy any germs of aseptic matter with which it came into contact, it, unlike carbolic acid and bichloride of mercury—which is fatal to animal and vegetable life of all degrees—is a great promoter of the process of oxidation, and, being non-poisonous, is an agreeable and natural antiseptic, and has the further advantage of leaving no stain whatever on the most delicate fabrics. Here, then, it would seem is a substance meeting with nearly all requirements, viz., a non-irritating, innocuous, volatile substance, freely soluble in water, and therefore applicable for use during operations and for dressing after operations it is everything that could be desired, while from its volatile nature the atmosphere is impregnated with a pleasant, invigorating odor.

"It has proved highly satisfactory as an antiseptic dressing in the following class of cases:

"1. In all cases of operation.

"2. As a dressing in cases of putrid, foul ulcers.

"3. As an infection in ulceration or malignant disease of the uterus.

"4. In concentrated form (equal parts of Sanitas Oil and glycerine) for saturating tampons of absorbent cotton for plugging the vagina in bad cases of cancer of the uterus.

"5. As a mouth wash in cancer of the mouth and tongue.

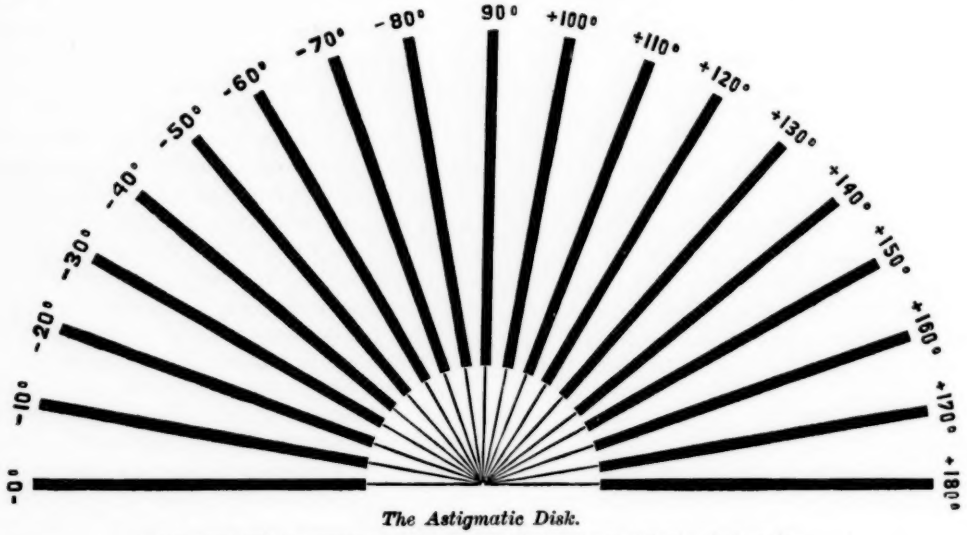
"In Sanitas we possess a substance which is a powerful antiseptic and disinfectant. Sanitas Jelly, for washing the floors of the wards, is particularly advantageous, especially where there

XUM

are cancerous or phthisical cases. In these latter cases it is well known the benefit patients derive from residence in the vicinity of pine woods. By washing the floors of the wards with Sanitas, from its volatile nature the atmosphere of the wards would speedily become impregnated with practically the same gases that are derived from the pine woods.

"Sanitas Wool and other dressings are being prepared, which from their cheapness I am sure will shortly supersede the more costly antiseptic dressings used."

Sanitas has been used at the Ward's Island Hospital with much satisfaction, and we intend in our future service to use it much more extensively.



The Astigmatic Disk.

These lines should all appear equally dark at ten feet to those not having Astigmatism.

ASTIGMATISM AS A CAUSE OF OBSCURE FUNCTIONAL HEADACHE.

BY C. A. BUCKLIN, A. M., M. D., NEW YORK.

THE object of this article is to so popularize the subject of astigmatism that it may become of interest and great practical value to the busy practitioner, whose daily routine of work teaches him to recoil from all special subjects which he supposes will require more thought than his limited time will allow him for investigation.

Astigmatism is frequently an undetected cause of the most annoying headaches. Cases are frequently encountered that are relieved like magic by the proper correction of their astigmatism after all other therapeutic agents have been tried for several years.

The practitioner of medicine should have some intelligent and practical ideas on this subject which will enable him to detect this cause of headache before he has exhausted his therapeutic resources and the patience of his patrons. If a functional headache be caused by astigmatism a few well directed questions will usually demonstrate the fact thus: The headache is increased by the use of the eyes; the patient has at times a sensation of nausea, and object appear to swing in a confusing manner; any attempt to look at fine checked or striped goods produces such an annoying sensation that the patient not only refrains from wearing goods of this description, but avoids looking closely at other individuals who wear such goods.

One glance at the astigmatic disk at ten or more feet will bring out the fact that all the lines of this cut do not appear equally dark when they are absolutely alike. This demonstrates clearly the existence of astigmatism. One glance at a watch or clock dial a few feet removed will demonstrate that all the figures on the dial do not appear equally black, but some two figures diametrically opposed to each other appear much darker than any other two figures on the dial. There is a possibility of a mistake in experimenting with the clock dial, as some figures are truely darker than others, but this possibility may be avoided by slowly rotating the clock or watch. If each figure or several figures become darker as they come to occupy the position occupied by the figure which was formerly considered the darkest the demonstration of the existence of astigmatism is complete. When astigmatism exists it should be regarded as the most probable cause

of the annoying head symptoms. From the above it will be seen that the diagnosis of astigmatism is so simple that no one can be reasonably excused for not recognizing it in patients who are greatly annoyed with headache.

Medical readers who have wandered thus far into what would appear to be a "special subject," will have undoubtedly become sufficiently interested in astigmatism to desire some technical knowledge on the subject. We will therefore pass to a clear and thorough description of the cause and nature of astigmatism.

When we review the history of ophthalmology during the past quarter of a century we must admit that the advancement made in this single subject as a result of anatomical study and physical investigation is truly marvelous. Thirty years ago the subject was just dawning on the minds of the greatest investigators. At present the subject is practically if not theoretically understood in every rural city, and the knowledge gained by centuries of investigation is being practically made use of in relieving thousands of persons from severe suffering resulting from astigmatism. Thirty years ago this class of cases were supposed to be suffering from a partial but incurable blindness. To-day their obscure vision and suffering is relieved like magic by the general introduction of cylindrical glasses, and education of a large class of men who know how to use them.

The cause of all forms of regular astigmatism is primarily the failure of the cornea to possess a perfectly spherical surface.

That is, a piece of sheet metal cut to exactly fit one corneal curve would not fit the corneal curve at right angles to this curve.

Astigmatism is classified for the purposes of teaching the subject clearly into the following forms: *Simple, compound and mixed* astigmatism.

Simple hyperopic astigmatism.
Simple myopic astigmatism.
Compound hyperopic astigmatism.
Compound myopic astigmatism.
Mixed astigmatism.

In all simple forms of astigmatism one curve of the cornea is normal, and the curve at right angles to the normal curve is either too *flat* or too *sharp*.

In ninety per cent. of all the cases of hyperopic astigmatism the horizontal curve of the cornea or some curve near the horizontal is too flat, the curve at right angles to the flat curve being normal.

In ninety per cent. of all cases of myopic astigmatism the vertical curve of the cornea is too sharp, the curve at right angles to the sharp curve being normal.

Before leaving the two forms of simple astigmatism, let us consider them in all their details.

If you direct the attention of an individual having simple astigmatism to the radiating lines of an astigmatic disk he will at once report that certain lines which are exactly alike appear to him to be of unequal darkness.

If the individual have hyperopic astigmatism, ninety times out of a hundred he will say that the horizontal line, or some line near the horizontal, appears the darkest. This defect is always corrected by a convex cylindrical lens with its axis set at right angles to the darkest line. If the horizontal lines are the darkest, the axes of the cylinder correcting the defect will stand vertical.

If when testing the right eye, lines to the right of the vertical above the horizontal line appear the darkest, and with the left eye, lines to the left of the verticle but above the horizontal appear the darkest, then the axes of the cylindrical lenses will slant towards each other above. If, on the other hand, the dark line seen on the face with the right eye be above the horizontal and to the left of the vertical, and the blackest line seen with the left eye be above the horizontal, but to the right of the vertical, then the axes of the cylindrical lenses will slant away from each other above.

In each case the black line seen represents the faulty curve of the cornea, and the axis of every cylindrical lens is always set at right angles to the faulty curve of the cornea.

In myopic astigmatism the vertical line, or some line near the vertical line, appears the darkest. When the vertical line is the darkest, the axes of the concave cylindrical lenses will be horizontal.

If with the right eye some line to the right of the vertical appears the darkest, and with the left eye some line to the left of the vertical appears the darkest, then the axes of the necessary concave cylindrical will slant upwards towards each other.

If with the right eye the darkest line appears to the left of the vertical and with the left eye to the right, then the axes of the concave cylinder necessary to make the lines all look equally dark will slant downward toward each other.

As in the previous case of hyperopic astigmatism, the darkest line represents the position of the faulty cornea curve, and the axis of the cylindrical lens is always required at right angles to this line for each eye.

Compound-hyperopic astigmatism is formed

commonly by the union of simple hyperopia to hyperopic astigmatism. It may be formed by the cornea having faulty curves in both meridians, both curves being too flat, but one curve being less flat than the other.

Compound-myopic astigmatism is formed commonly by the union of simple myopia with myopic astigmatism, or it may be formed by both corneal curves being too sharp, one curve being sharper than the other. In compound astigmatism the rules given for the determination of the axis in simple astigmatism do not hold good until the compound astigmatism is reduced to simple astimatism by the use of a concave or convex spherical lens, which represents the strength of the hyperopia or myopia in the case.

Where there are too faulty corneal curves, both hyperopic or both myopic, the giving of a concave or convex lens which is equal in strength to the weaker corneal curve reduces the compound astigmatism to simple astigmatism, making the above given rules for roughly determining the axis given in simple astigmatism good.

Mixed astigmatism is formed in three ways: simple myopia is joined to hyperopic astigmatism, or simple hyperopia is joined to myopic astigmatism, or one corneal curve is sharper than normal, usually the vertical, while the horizontal curve is too flat.

The cases require expermental determination of the defect in the different meridians by selecting the cylinder which gives the best result, then crossing it with a cylinder of the opposite value at right angles; thus having measured one meridian you do not disturb it while you measure the reverse meridian with another cylinder.

For example, Mr. B. refuses both concave and convex lenses, he accepts a concave cylinder No. 20, ax. 180°, which greatly improves distant vision, but does not make it satisfactory. This cylinder is crossed with a convex 40, cylinder ax. 90°. The resulting formula is:

Right eye—$\frac{1}{20}$c. ax. 180° ⊃ + $\frac{1}{40}$c. ax. 90.
Left eye—$\frac{1}{20}$c. ax. 180° ⊃ + $\frac{1}{40}$c. ax. 90.
Vision = $\frac{20}{20}$.
Vision = $\frac{20}{30}$.

Such lenses are only ordered by the young and foolish. We change this formula to a sphere and cylinder which will answer the same purpose, thus + $\frac{1}{40}$s. ⊃ — $\frac{1}{15}$c. ax. 180°. Vision $\frac{20}{20}$.
+ $\frac{1}{40}$s. ⊃ — $\frac{1}{15}$c. ax. 180°. Vision $\frac{20}{30}$.

We now have a lens which produces the same effect; it is easily ground, and can be adjusted perfectly if any error is made by the grinder in the position of the axis.

Muscular Percussion Reflex; Loco-Tetanus (London *Lancet*).—When the chest wall is subjected to a tolerably smart blow with the finger or percussion hammer, an elliptical elevation of the surface may frequently be observed for a few moments after the blow. This fact has been remarked by Mr. Lawson Tait, Dr. James Ross and others. Dr. V. V. Philopovich, of Odessa, has investigated the conditions under which the phenomenon is produced showing that it may be made available like other reflexes for diagnostic and clinical purposes. In his observations he made use of a percussion hammer furnished with a spring and an index by means of which the force of each blow was registered. The pectoral regions of 100 presumably healthy young men were examined. The lowest force required to produce the phenomenon—which Dr. Philipovich proposes to style "loco-tetanus," instead of "idio-muscular contraction," the term used by Dr. Ross—was 400 grammes, and the highest 2,000 grammes. On analyzing the observations, it was evident that the lower degrees of force were invariably sufficient in weakly and ill-formed subjects who had been either permanently or temporarily rejected by recruiting authorities. Still lower figures were obtained in diseased persons, the lowest of all being afforded by phthisical patients. In all chest cases it was noticed that the "locotetanus" was more easily produced on the side where the disease was situated, or on that where it was most extensive; thus in a case of dry pleurisy of the right side the figures obtained were—for the sound side 550 grammes, and for the diseased side 150 grammes. The mean force required in the hundred healthy subjects was 750 grammes on the right side and 850 grammes on the left; and as the limit of that which could usually be borne painlessly by healthy persons with the instrument used (the head of which was a metal ball covered with gutta-percha) was about 700 grammes, it may be roughly assumed that if the contraction can be produced by a tap, the force of which is much below that which is sufficient to cause pain in a healthy subject, some pathological condition is probably present, or at least that the general state is below that of the vigorous man.

Recent Observations on Urine-Testing.—George Johnson, M. D., F. R. S., finds, *Brit. Med. Jour.* January 8, 1887, 1. That not a trace of glucose is to be found in normal urine, and that the substance in normal urine which exercises a reducing action by boiling with picric acid and potash is kreatinine.

2. That the urine of patients who are taking salicylate of soda gives, when boiled with picric acid and potash, a deeper red color than normal, the color being equal to that resulting from the presence of one or two grains of glucose per ounce. This is due probably to the presence of some product of the metabolism of the salicylate of soda since it was found to be not due to excess of kreatinine.

3. That urine to which a few grains of chloral hydrate had been added to prevent putrefaction will reduce alkaline copper solution like diabetic urine, and a like result follows in testing the urine of patients who have taken a medicinal dose of chloral; but urine containing chloral hydrate does not have such effect on the picric acid test.

4. That the potassio-mercuric iodide test for albumen is fallacious, since it is well known that this reagent causes in normal urine when added to it after Heller's method an opalescence not to be distinguished from a slight albuminous precipitate.

The New York Medical Times.

A MONTHLY JOURNAL

OF

MEDICINE, SURGERY, AND COLLATERAL SCIENCES.

EDITORS:

EGBERT GUERNSEY, M.D. ALFRED K. HILLS, M.D.

Business Communications should be addressed, "Publishers, 526 Fifth Ave.," and Checks, etc., made payable to THE NEW YORK MEDICAL TIMES.

Published on the First of each month.

OFFICE, 526 FIFTH AVENUE, NEW YORK

Benj. Lillard, Advertising Manager, 72 William Street, New York. Communications in regard to this department should be addressed as above.

NEW YORK, JULY, 1888.

HAIR-SPLITTING PHILOSOPHY.

THE ADDRESS on medicine before the last meeting of the American Medical Association was by Prof. Roberts Bartholow, who in his writings and teachings, ranks among the advanced thinkers of the Old School. We have read before of one who had sat at the feet of the Master, afterward deny him with curses and scorn, and the history of every age is full of cases of men who have risen to wealth and prominence and who, as they were basking in the sunlight of public favor and prosperity, have had no words sufficiently bitter to hurl against those whose aid directed their first faltering steps, and placed their hands upon the ladder the rounds of which they have mounted so high that in the bitterness of their nature they can find nothing but words of scorn for those who have been their benefactors. Dr. Bartholow in his bitter denunciation says "The success of such wretched puerilites and inanites as the homœopathic practice consists of does more to level the position of the medical profession than any other cause," and then with a recklessness and impudence which can hardly be the result of ignorance goes on to say "as a teacher of therapeutics for many years I could not fail to observe that the attainments of the profession in respect to the power of medicines are not as fully developed as they ought to be. They do not have that familiarity with the physiological power of drugs which the effective use of remedies demands. It thus happens that the highest precision is not obtained. Vague notions take the place of scientific accuracy when such has been the progress in this department that a considerable degree of certainty should be the rule." Dr. Bartholow cannot be ignorant of the fact that the physiological study of drugs, the absence of which in the Old School he deplores, is the basis of homœopathic therapeutics, and was first brought into prominence by Hahnemann. The specific action of each drug through all its stages was carefully studied not only through the symptoms produced but the pathological changes of structure made. That the drug might always be of uniform strength directions were given as to the proper place and time of gathering plants and the manner of expressing and preparing their juices. Mineral substances and chemical compounds were subjected to the closest scientific scrutiny, in fact the clear and explicit directions were given in the preparation of drugs a hundred years ago which Dr. Bartholow at the close of the nineteenth century proclaims to the world as something new, the brilliant flashings of his own genius. In a recent review of the works of Dr. Bartholow and Dr. Farrington upon "Therapeutics" we pointed out from the similarity of teaching that the study of most of the prominent drugs must have been made from the same standpoint, their application in both cases being such as would naturally follow a knowledge of the physiological action of drugs. Dr. Farrington followed the plan, in the study of his drugs, marked out by Hahnemann. Is it possible that Dr. Bartholow following precisely the same line of investigations and reaching similar conclusions did so entirely independent of the teachings of Hahnemann, and that the truths reached at last by him were the result of long and careful thought and the direct influx into his mind from the great fountain of truth? Such things are possible. Adams and Leverier, each independent and unknown to each other, starting from the same premises, by well-known lines of scientific reasoning reached the srme conclusions within a few hours of each

other, and proclaimed the existence of a before undiscovered planet. But it is reserved for the wise men and original thinkers of the Old School in medicine of the present day to seize hold of a principle which has been steadily growing in public favor for a century, utilizing its work, and pushing forward in the same path, proclaim it entirely new, and the outgrowth of the steadily advancing progress of scientific enquiry of the ages.

No great truth has ever been advanced which visionary minds have not sought to make the anchorage of absurdities in philosophy and practice, and homœopathy has been no less fortunate than a hundred other great principles which have been fettered and crippled by the unphilosophical and entirely irrelevent reasoning of unbalanced minds. What if even the term *similia similibus curanter*, or *curenter* is not as they claim, the proper one to designate the selection of drugs in the treatment of disease, what matters it so long as we reach the same results through the picture given of the physiological action of drugs in the pathological changes of tissues. Is it worth while to split hairs on a question like this when the principle is so clear and philosophical as to commend itself to every intelligent thinker? With the absurdities which have obscured, in the minds of many, the real merits of so-called homœopathy we have nothing to do; they are rapidly disappearing with the still greater absurdities, the illogical reasoning and crude practice of the Old School. We believe in the rapid advances of therapeutic knowledge every thing will be subjected to the most searching scientific tests; the pharmacopia will be weeded out of an immense amount of useless material, and the survival of the fittest may possibly evolve in the future a profession which will think more of scientific truth and less of personal greatness, and which under the broad title of physicians will not hesitate to honestly appropriate facts wherever they may be found.

IMPURE WATER.

THE question is often asked why malaria and diseases which can be traced to a certain extent to impurities in water, are found now in places which a few years ago were comparatively free from them. One reason undoubtedly is that with the increase of population and manufactories the water supply is poisoned to a greater or less extent by poisons being thrown into running streams and by defective sewage. Wells which are to supply drinking water should be placed at least fifty feet away from any cesspool or pile of manure with at least ten feet of the upper portion of the wall of the well laid in cement so as to cut off the possibility of the well receiving surface water. Chemical analysis is somewhat complicated and requires the experience of a chemist, but any one can fill a clean quart bottle half full of water, shake it violently, remove the cork and detect any odor there may be at the mouth of the bottle. If there is no smell, again cork the bottle and put it for two or three hours in a warm place and again test by smell. If there is an unpleasant or faint musty odor you may be sure there is something wrong. If the sediment left after evaporation is large, of dark color and burning gives off the odor of burning hair or other animal matter the water is so foul as to require careful examination. Filters, although they remove the larger particles of foreign matter, do not reach a certain class of poisons which may be held in such perfect solution as to escape detection except through the process already described preparatory to the tests of the chemist. The cool and shady farm house so much sought for by dwellers in large towns and cities, the beautiful cottages embowered in vines and trees, are not necessarily healthy because they are away from a dense population. In every case the character of the soil and the water supply should be carefully examined. If this were done fewer people would return in the fall with the seeds of dysentery, typhoid fever and malaria deeply planted in the system.

THE International Congress of Anthropology held its first meetings in this country the first week in June, at Columbia College. Among the foreign visitors was Prince Roland Bonaparte. A very interesting paper from the pen of Henry Maudsley, of London, was read on Criminal Anthropology, Criminal Biology and Sociology, Crime and Criminals. He divides criminals into two distinct classes, the one comprising what

might be called the occasional or accidental criminal, and the other the natural or essential criminals. The first class comprise a large majority of the human race, many of whom are only prevented from being criminals by keeping out of the way of temptation. The latter class comprise those who are defective in mental organization and who, with no strong intellectual or moral principle to sustain them, drift naturally into crime. In the latter class he also includes a third in which physical disease predisposes to crime. Dr. Kerrs in his paper on "Pathological Inebriate Heredity" believed that a large proportion of crime committed under the influence of stimulants or narcotics to be the outcome of physical disease which, if it had been treated in its earlier stages, might have been prevented. He had no doubt that at least fifty per cent. of inebriates suffered from hereditary taint, either directly or indirectly. The meetings of the congress were fairly well attended, and the papers many of them were of high literary and scientific merit.

TRANSPLANTATION OF A NERVE OF A RABBIT TO MAN.

THE Vienna correspondent to the *British Medical Journal* gives an account of this interesting and novel operation performed by Dr. Gersung, assistant to Billroth. Prof. Heischl sixteen years ago had sustained a postmortem wound which resulted in inflammation of the arm and hand, and finally by gangrene of the terminal phalanx of the thumb. The thumb was amputated. Neuromato, attended with great pain, developed. For relief portions of the median and radial nerve were removed until the thumb and nearly all the forefinger became anæsthetic. Neuromata again appearing with intense pain the following operation was performed: The membrane behind the volar carpel ligament was excised, the nerve being cut behind the neuroma. The peripheral ends of the two digital branches above mentioned were then sought for, then a rabbit was killed and a piece of the sciatic nerve as long as possible with the two branches into which it is divided was removed (the animal still preventing voluntary contraction). The sciatic nerve was afterward inserted into the space between the central stumps of the median nerve and its digital branches; the central end of the sciatic nerve was sutured to the connective tissue which covered the median nerve, and the two branches were sutured to the digital branches of the median nerve the portion of nerve which was deficient thus being made up. After the operation severe pains persisted for some hours but subsided entirely. Healing took place by first intention.

Two months have now elapsed since the operation, sensibility is reappearing, and there has been no return of the pain. It is hoped that this favorable condition will continue. Dr. Gersung has deferred publishing his case as he wished to see whether complete sensibility would become established.

PUERPERAL CONVULSIONS.—Dr. Gregery narrates in the *Eclectic Medical Journal* an interesting and violent case of puerperal convulsions successfully treated with veratrum viride. The patient shortly after instrumental delivery had eight distinct convulsions in forty minutes. Before she could be brought under the influence of anæsthetics she had severely bitten her tongue which had bled freely. "Her face was intensely congested; the perspiration was pouring off her person in streams, the skin fiery hot, the steam rising whenever the bed clothing was turned back; the pulse 160 per minute, full and bounding; axillary temperature, 106°; jaws firmly set; breathing stertorous. I immediately injected into the forearm fifteen drops of Lloyd's specific tincture veratrum viride, and repeated in half an hour. She had no more convulsions. At eleven p. m. she vomited a large quantity of ropy mucus. At midnight the pulse was sixty-three per minute, temperature 98°, surface cool. An hour later she was rational, and swallowed ten drops of the veratrum, which I ordered continued in five-drop doses every three hours. During the next six days I gave her enough veratrum to keep the pulse at fifty to eighty per minute, and in ten days she was sitting up feeling quite well. Examination of the urine the day after delivery showed that it contained albumen."

AGARICINE IN THE SWEATING OF PHTHISIS.—Piermy, the author, has experimented recently in Professor Pribrams' clinic with this new alkaloid, prepared from the alcoholic extract of the white agaric; he gives it in doses from 1-70 to 1-60 of a grain without any effect sometimes, but generally it diminishes a profuse sweating when he gives it in 3-70 of grain or more; he had the following results:

(1.) Agaricine nearly always decreases the sweating in consumptives.

(2.) It has no modifying effect on the respiration.

(3.) In cases of profuse sweating, when suppressed by this alkaloid, the pulmonary and skin functions were not modified.

(4.) The result seems to depend on lessening the absorption of water as the thirst and urine were diminished under its use.

(5.) A few pills of one-sixth of a grain each of agaricine would arrest a profuse sweating in four or five hours.

(6.) The use of agaricine gives no inconvenience whatever afterwards.

(7.) The feebleness of the consumptive is diminished, but the other symptoms are not modified.

ANTIPYRIN has become so popular with the profession since its first introduction only a short time since, and is so generally used that we ars glad to learn there is a prospect of its being furnished at a much lower price than formerly. The manufacture and supply of the drug has heretofore been under the control of a monopoly which has grown rich out of its profits. The French Board of Hospital Charities will hereafter furnish the drug from a manufactory directed by itself to the hospitals of Paris under the name of analyisine, and at a greatly reduced price.

AN AUTOPSY of the Emperor Frederick established without doubt the cancerous nature of the disease which ended his life. Dr. Mackenzie said that all hope of prolonging the Emperor's life was abandoned on the night of the 13th. Dr. Mackenzie, whose skillful treatment undoubtedly prolonged the sufferer's life and enabled him for three months to fill the rôle of Emperor, says he has parted on friendly terms with all the German physicians but one, and that while he had been fully aware of the cancerous nature of the malady since February he did not make the opinion public as if it was admitted, a regency would probably have been established which would have materially complicated the political situation. Sir Morrel Mackenzie's rare skill together with the prudence and excellent judgment with which he filled his most difficult position are worthy of the highest praise.

DR. TALCOTT, Superintendent of the Homœopathic State Insane Asylum, Middletown, N. Y., will sail for Europe with Mrs. Talcott and Miss Hayes, daughter of the treasurer of the asylum, about the 15th of July. Dr. Talcott's trip is partly one of rest and pleasure, and partly in the interest of the asylum. The Legislature, at its last session, appropriated $86,000 for much-needed improvement, which will consist of a pavilion for the chronic insane, a chapel, a cottage for the superintendent and an electric plant for lighting the buildings and the grounds. All these improvements will be completed by spring, when the asylum will be able to accommodate seven hundred patients. It has always been the plan of the trustees and the superintendent to appropriate the most advanced ideas for the management and treatment of the insane which could be obtained from careful scientific research and the methods which have been the most successful in other institutions. Dr. Talcott will make himself familiar with the methods of dealing with the insane in Gheel, in Belgium, with a view of utilizing such ideas as may be found practicable in the cottages, which within two or three years the ever increasing demands of the asylum at Middletown will require for its inmates.

A legend traces the origin of the town of Gheel back to a chapel of St. Martin erected in the seventh century, in which an Irish princess fearing the fate that long afterward befel Beatrice Conci sought refuge, but was pursued by her relentless father and put to death along with a priest the companion of her flight. The tomb of the victims was soon discovered to have a healing virtue for minds diseased, and during the centuries which

followed thousands flocked to the tomb of the murdered princess. As food and lodging had to be provided for the patients they were received into the houses of the peasants, and it was found there was far less danger from the free intercourse with the insane than was generally supposed. The whole management of the system is now under the supervision of officially appointed physicians, and the advantages of a regular establishment are thus combined with those of domestic comfort, social freedom and activity. The introduction to a certain extent of the cottage system at Middletown will facilitate a better classification of patients and a grouping together with proper surroundings, amusements and employment, the small circles which would be of mutual improvement to each other.

DR. HOWARD S. PAINE and his sister, Miss Emily Paine, of Albany, sailed Saturday, June 18th, from New York, with the members of the party of which they are chaperones, for a European tour of three months, returning by the steamer Westerland about the 5th of September. Dr. Paine has been over the route several times, is thoroughly familiar with all objects of special interest, and his party of only fourteen persons is just large enough under his experienced and pleasant management to have an exceedingly delightful and profitable excursion.

A NEW hypnotic called Boldin is a glucoside made from boldo leaves and highly praised by Dr. Quanville in *Progrès Médical*, who says as a hypnotic it is better than opium or chloral. He says it has a tonic influence on the patient, and is not in the least disagreeable to take. Under its influence sleep is induced of a natural kind, and the breathing is regular and tranquil. It may be given in capsules in doses of three grains, repeated if necessary, or hypodermically, diluted 1-20 in water.

IT WILL be remembered that two eminent pathologists, Virchow and Waldeyer, made minute microscopic examinations of matter taken from the throat of Emperor Frederick. Virchow found no indications of cancer while Waldeyer came to an entirely different conclusion. Waldeyer believes that nests of epithelial cells arranged like an onion shows cancer wherever they may be found, and finding these in the epithelium of the larynx pronounced the case cancer. Virchow believing that the nested cells of alviolar structure only indicate cancer when found in the mucus tissue pronounced the case one of *pachyderma laryngis*.

DR. HANCHETT'S able art cle, read before the Congress of Anthropology, which we print in other columns, contains a condemnation of vaccination which we do not share.

Of two evils we would most surely select the least, and from a somewhat extensive experience we consider vaccination as far the least. We quite agree with Dr. Hanchett's assertion respecting the influence of diet in promoting susceptibility to the disease, but at the same time we could not at present abandon that prophylactic means which the great majority of physicians agree in placing as *first* in the treatment of a most dreaded affection.

HYPNOTISM EXTRAORDINARY.

A DISTINGUISHED company of Parisians recently witnessed some interesting experiments by a newly-discovered hypnotiser, which are described as follows in the *Pacific Record*:

M. Moutin does not put people to sleep, but makes them obey his will while thoroughly awake. He began by choosing his subjects among the people who presented themselves by placing his hand on the nape of the neck. While talking to them he inquired whether they felt an unusual heat under his hand. If an affirmative answer was given he knew he had a good subject, and while telling him to stand up straight, soon brought him on his knees by simply placing one hand lightly on his back and holding the other in front of his knees. One gentleman, well known in Parisian society, was dragged around the room among the spectators by M. Moutin, who put that gentleman's hand first on his shoulder and then on his head, and told him to follow him. When they got back to the platform he told the same gentleman, when sitting on the ground, that he forbade him to rise. Notwithstanding the most strenuous efforts he could not rise until he had received the magnetiser's permission. One of the writers on the *Gaulois* was operated on in a yet more astonishing manner. Placed at the extremity of the long hall, with his back turned to M. Moutin, he was told to do all he could to prevent himself from being drawn backwards toward the platform. He used what seemed to be

almost superhuman efforts to stand where he was, but soon his legs began trembling violently, and in spite of all he was soon walking backwards toward the operator. After that everybody was made to laugh heartily by the same gentleman being compelled to dance in a most amusing manner. M. Moutin also fought a mock duel with him. Asking for two walking sticks, he gave one to the gentleman, and, after crossing swords with him, paralyzed his arm by his will. After releasing him from this disadvantageous position, M. Moutin defied his adversary to touch him with his stick. The operator failed in this instance, for after a prolonged effort, during which the journalist seemed to strain every nerve and muscle in his body, he at last touched M. Moutin's chest. The operator, however, won great applause by recommencing the experiment. He stood perfectly still, and offered, as before, no resistance but his will or magnetic power. The gentleman, with his stick, struggled, so to say, against the air, but he failed to touch the operator. One of the ladies present was then told by M. Moutin, while she was sitting among the spectators, that he defied her to say "Nebuchadnezzar." It was ridiculous in the extreme to hear her try in vain, until the operator gave her permis-ion to say the word. The same lady was evidently a good subject, for M. Moutin placing two chairs in the middle of the platform, sat down on one, and then told the lady she would come and sit down on the other and lean her head on his shoulder. She protested, but in a few minutes she was seized with a most violent trembling in her outstretched arms. She got up, and then threaded her way among the spectators in what seemed to be a nervous trance, for she trembled most violently. Some people thought she would trip on the platform steps, but M. Moutin who was sitting quietly awaiting her arrival, reassured them by saying: "She cannot fall; I forbid her to fall." She sat down on the chair, and when there seemed determined not to put her head on the shoulder of the operator, but in a few moments she closed her eyes and let her head fall. At the same instant M. Moutin started to his feet, and, blowing in her face, restored her instantly to consciousness. Other equally astonishing experiments were made by him on people who it is difficult to suppose could be accomplices to a trick.

BIBLIOGRAPHICAL.

ALDEN'S MANIFOLD CYCLOPEDIA OF KNOWLEDGE AND LANGUAGE. New York. John B. Alden publisher.

The third volume of this remarkable cyclopedia covers down to Baptisia. We say remarkable cyclopedia for when the public can obtain a cyclopedia in thirty volumes, in cloth binding, at fifty cents a volume, and in half morocco at sixty-five cents, and even at a less price to early subscribers, of the uniform excellence of the work it would seem that the lowest limit of production has been reached. An enterprise of this kind can only return profit to the publisher by the enormous sales which will undoubtedly be made.

ACCIDENTS AND EMERGENCIES. A manual of the treatment of surgical and other injuries in the absence of a physician. By Chas. W. Dulles, M. D., Fellow of the College of Physicians of Philadelphia, and of the Academy of Surgery; Surgeon to the Out-Door Department of the Hospital of the University of Pennsylvania, and of the Presbyterian Hospital, in Philadelphia, &c. Third edition, revised and enlarged, with new illustrations. Philadelphia: P. Blakiston & Co., 1888; pp. 123, 12mo.

A convenient little brochure for just the purpose indicated by its title, and worthy a place in the hands of laymen.

THE GUIDING SYMPTOMS OF OUR MATERIA MEDICA. By C. Hering, M. D. Vol. IV. Philadelphia: Estate of C. Hering, 112 and 114 N. 12th St.

A new feature has been added at the head of each drug treated in the shape of a clinical index, giving a list of authorities and designating the publication in which the full reports of each case with its cured symptoms may be found. This work is without doubt the most complete and reliable one of its kind in existence, and notwithstanding its volubility, is arranged in a manner to be both practical and convenient as a hand-book for daily use. Those who care for the symptomatology of drugs should not fail to have this work.

PUBLICATIONS OF THE MASSACHUSETTS HOM. MEDICAL SOCIETY, 1887, Vol. X, 1887; pp. 243.

This volume, like its predecessors, contains much valuable information, which deserves a wider reading than it will get published in this way.

The journals would be a better medium and reach a greater number.

THE PATHOLOGY, DIAGNOSIS AND TREATMENT OF THE DISEASES OF WOMEN. By Graily Hewett, M. D., F. R. C. P. New York: E. B. Treat, publisher, 771 Broadway.

Dr. Hewett has so long been before the profession as one of the ablest teachers and writers upon diseases of women that anything from his pen will be read with marked interest. The present edition of his work on diseases of women is an American reprint, edited with notes and additions by H. Marion Sims, M. D., from the fourth revised and enlarged London edition, which has been almost entirely rewritten by the author, and contains a large amount of matter not found in previous editions. The work is published in three volumes, forming a part of and uniform in size with medical classics.

The Physicians' Leisure Library, published by George S. Davis, Detroit, Mich., is a most interesting series. No. 8 consists of "The Infectious Diseases," by Prof. Karl Liebermeister. The busy practitioner will find these little brochures convenient to read in the carriage or railway car. Issued monthly at $2 per year; single copies 25 cents.

The July *Century* is to contain another article in the series which the Rev. Dr. Buckley, the editor of the *Christian Advocate*, has been for some time past contributing occasionally to that periodical. It is entitled "Dreams, Nightmares, and Somnambulism." It will contain a chapter on "Mysterious Dreams Analyzed." A timely article in this number also is "Disease Germs and How to Com-

bat Them." It will be accompanied by a frontispiece portrait of Pasteur, who has made disinfection and fermentation a longer study than hydrophobia, although it is with the latter that his name is more intimately associated in the public mind.

CORRESPONDENCE.

A POSSIBLE DANGER OF HYPNOTISM.

To the Editors of THE NEW YORK MEDICAL TIMES:

There has lately appeared in the New York papers an account of a trial in which a doctor was accused of carrying off a young girl, it being claimed by the parents that he had exerted undue influence over her by means of hypnotism, or something of the kind.

The accusation in this particular case may be true, or it may be false, but the occurrence seems to offer a fitting occasion to present certain facts in connection with this subject of hypnotism which may not be without interest in the future.

During my stay in Europe I have seen and heard much of this subject, and have had excellent opportunities of judging to what extent it may be carried, and how far one person may, by its aid, control the actions of another.

Although much that has been written on this subject is nothing but the wildest vagaries of deluded enthusiasts and utterly unworthy of belief, at the same time the main facts of hypnotism, as determined and verified by eminent men both here and in America, are true beyond a doubt, otherwise the few observations which I have to make would be utterly without justification. I wish to call the attention of my professional brethren in America to the fact that this mysterious power, which is little known amongst us, but much better known here, on the Continent, may, under certain circumstances, when in the hands of unprincipled persons, offer a real danger to society. This danger has already been recognized over here, and we may also learn to know it through unpleasant experience before very long. A few of the facts of hypnotism bearing directly on this point I will briefly mention here. First may be stated the well known fact that persons who are often hypnotized finally become so susceptible that the act is accomplished with the greatest facility. I have myself seen a most striking example of this in the case of a young girl who had been treated for a long time, and who finally became so susceptible that a simple glance from her physician as he entered the room was sufficient to throw her into the hypnotic sleep. Numberless examples might be cited illustrating the extent to which this susceptibility is sometimes carried were it not that they would require too much space.

The following striking hypnotic experiment was performed by a French physician, and is of particular interest in this connection:

While treating a young girl in his office the bell rang and he told her to go to the door, she being in the hypnotic state at the time, but with open eyes. She did as she was bid, opened the door and received a letter from the carrier, which she brought to the doctor, without the man who had brought it having any idea that the girl was not in her normal condition. The doctor then took the girl with him into the public park, where he met one of his friends, to whom he introduced her, she being all the while in the hypnotic state. She talked perfectly naturally with the friend, so that he had not the least suspicion of her real condition, and yet when she was brought back and awakened she had no idea of what had passed or that she had even left the doctor's office. Another case I will also relate, at the risk perhaps of saying things which no one can believe; this whole subject, however, is so marvelous that in any discussion of it one cannot avoid stating these marvelous cases. The victim in this second case was also a young girl, who was so completely in the power of a man who lived in another part of the same house that she was utterly unable to withstand his will, and felt herself compelled to do anything that he desired.

Being without moral character, this man took a malicious delight in compelling the poor girl to take long walks at various times, and to do numerous other things, simply to gratify his pleasure. After this had gone on for some time the girl began to lose her health, and she finally pined away and died, apparently on account of the malign and mysterious influence exerted upon her by her tormentor.

It would be easy to laugh at these two cases and deny their truth in toto, but they are only two out of hundreds of others which might be collected, and moreover I have seen personally enough of these experiments to convince me that such cases are not by any means beyond the bounds of probability.

The opinions put forth in this paper have not been formed by a hasty glance at the literature of the subject, but, on the contrary, are the result of personal observation in the great nervous clinics of Paris and Vienna during the past year.

If hypnotism really does offer a certain danger to society which may increase as a knowledge of the science becomes more diffused, what steps shall be taken to guard against it? This is a much easier question to ask than to answer, and yet one thing is plain, namely, that the frequent exhibitions of so called mesmerism, which is essentially the same as hypnotism, should be prohibited. The great Charcot, of Paris, one of the firmest believers in hypnotism and a constant experimenter in this field, has more than once protested against these exhibitions given by men who care not a whit for the advancement of the science, but simply to make money.

Hypnotism is a remarkable and mysterious power, some of whose manifestations are almost incredible, and which may possibly be of great benefit to the human race in the future, but, like other beneficient agents, its power to do good when properly employed may be equalled or even exceeded by its power to injure when abused. If any one should attempt to give an exhibition in one of our large cities, in which subjects were put under the influence of hashisch or some other powerful narcotic, in order that their delerious ravings might entertain the audience, such an exhibition would be immediately stopped as an offence against common decency.

Hypnotism is an agent which in its effects on the nerves and its profound and far-reaching influence on the general system, is far more powerful in certain directions than any material drug. America has not so much to apprehend from this cause as Europe, for the reason that the subject is not so well known among us as it is here, but these exhibitions will only help to spread the knowledge of this dangerous science (if I may use the word) all the more rapidly without fulfilling any useful object whatever.

There seems to be no good reason why they should not be prohibited even if further steps are not taken in the matter.

France has already realized the necessity of modifying her criminal code in order to reach the relations which this power may have to crime and criminals, and it will not be long before the other countries of Europe will see the advisability of following her example.

I do not wish to be understood as speaking against hypnotism or denying its value as a therapeutic agent, but as simply arguing against the "popularizing" of it, as one might argue against the popular use of morphine or any other powerful and therefore dangerous drug. I have certainly seen good results from the use of hypnotism in various forms of nervous diseases, and am inclined to believe that it may yet become a valuable addition to the healing art. This is too wide a field to enter on, however, in this article, and I will therefore confine myself to the phase of the subject already discussed, leaving the consideration of the former for another occasion.

W. F. ROBINSON, M. D.

VIENNA, May 25, 1888.

TRANSLATIONS, GLEANINGS, ETC.

DISEASES OF THE HEART.

BY T. M. S.

Arsenicum Iodidum in Heart Disease. (Clarke, *N. E. Med. Gaz.*)—1. In almost all cases of chronic weakness of the heart muscle, whether resulting from valvular disease or not, the iodide of arsenic, more than any other single remedy, will restore strength to the muscle, and remove many or all of the attendant symptoms, both cardiac and systemic.

2. When it fails to effect improvement in the specific heart symptoms, it rarely fails to bring about improvement in the general health.

3. It is often useful alternated with, or sometimes followed by, remedies more particularly indicated by the specific symptoms of each individual case.

Cardiac Degenerations and Bright's Disease the Result of Changes in the Intima of the Arteries and Veins.—Meigs (*Jour. Med. Sci.*) reports the interesting case of a man admitted to the hospital for heart disease. The autopsy showed bronchitis, emphysema and catarrhal pneumonia; valvular disease of the heart and fibroid degeneration; fatty infiltration and atheroma, with calcareous degeneration of some of the coronoid vessels. There was also interstitial hepatitis, parenchymatous and cystic disease of the kidneys, and inflammatory bands obstructing the primitive iliac vein, with further evidence of a diseased condition of the venous system. Microscopic sections of various tissues showed a peculiar morbid condition of the tunica intima of the arteries and arterioles. This consisted in an irregular thickening, often in small arterioles, to be plainly distinguished as lying entirely within the plicated membrane, and in larger arteries recognized by the naked eye as belonging to the lining of the vessels, and containing in many instances a greater or less number of nuclei imbedded in a structureless matrix. Rheumatism, alcohol and venereal disease were excluded as factors in the case. Reference is made to the lectures of Dr. J. L. Stevens, in which the author endeavors to show by the citation of cases that fibroid degeneration of the heart, is, in the great majority of instances due to disease of the coronary arteries. To this Dr. M. adds: why then is it not much easier and more natural to suppose that lesions such as those above described are due to the condition of the arteries which is found to exist to so great a degree in so many different organs, and that the attack which has its origin in them becomes a case of Bright's disease, one of emphysema of the lungs, of valvular disease of the heart, or fibroid degeneration, or some other degenerative disorder, according as the arterial change takes possession of one or another of the organs. It can be presumed that the intima is attacked before the muscular layer, suffers more, and causes more serious disorder, since it is supposed to constitute the walls of the capillaries, which have no muscular coat, and this might help to explain entirely, or in part, the fact of the destruction of nutrition, which takes place in the organs most seriously affected. These observations would tend to show that these various chronic degenerative processes are not separate entities, but the expression of a disease of the arterial system, probably originating in the tunica intima. The cause instituting these processes must be still a matter of speculation.

Spontaneous Rupture of the Heart. (Muir. *Glasgow Med. Journ.*)—The patient had a bad history of alcoholism; had been a professional athlete or runner, although a bad "stayer." He first complained of any pain in the region of the heart about one week before the fatal attack. He was attacked suddenly and fell to the floor, and was seen by the physician in an unconscious state. There was no pulse at the wrist and only the feeblest intermittent action of the heart could be detected by auscultation; apex beat not felt. Ears purplish, face cyanotic, and skin pallid. Respirations quick, 50 to the minute. Under treatment the heart beats became firmer and more regular, but at long intervals. He began to complain of pain which he ascribed to the "back." Frequently uttered piercing screams, and begged those around him to kill him, and it was evident from his sufferings that it would have been a relief to him. Hands, feet and legs cold. Pericardial pain was not a pronounced symptom. The favorite position was a semi-prone one, partly on the face and partly on the left side. Finally the movements became very violent, and he expired after one hour's illness. Autopsy: Body well nourished; the perica dium was filled (20 ozs.) with a thick, dark-brown, bloody serum; serous layer of the pericardium free from roughening; heart hidden under a large clot of blood; heart of usual size, with thick, irregular masses of fat covering its surface; a large tear, which easily admitted two fingers, was found in the wall of the right auricle between the superior and inferior venæ cavæ of the external appendix, and communicating with the sinus venosus; the wall of the right auricle in several places was thinned down almost to the tenousness and translucency of tissue paper; the muscular tissue of the whole organ was exceedingly pale; patches of degeneration were scattered over the arch of the aorta; none of the chambers of the heart seemed dilated or their walls hypertrophied; the valves were patent and free from growths; lungs and organs engorged. The sufferings of the patient were extreme, and the reference of the pain to other parts of the body not easily explained under any hypothesis. The fatty condition of the heart was doubtless the chief predisposing factor.

Tobacco Heart.—Fussell (*Canada Med. Rec.*) reports nine cases diagnosed as functional disorders due to the excessive use of tobacco. The ages ranged from 17 to 27 years. The tobacco was used in chewing form, and ranged in amount from one-half to one pound per week. The

habit was begun in early life, in one case at five years of age; the average was seven years. The symptoms were palpitation, pain and dyspnœa. The palpitation was present in all the cases, and was increased on making any exertion. Irregular action of the heart was noted in only one case, at the time of examination. Pain was complained of in seven cases, and had its site immediately over the heart and over the sternum. Dyspnœa was complained of in three cases, but was not excessive. Hypertrophy of the heart was evidenced by increased area of dullness in two instances. In both cases the dullness extended to the right edge of the sternum. There were no murmurs. Total abstinence, and in some cases the moderate use of bromide of potassium, gave entire relief after three or four weeks.

Relation of Heart and Kidney Affections.—Dr. Da Costa, in the Middleton-Goldsmith lecture (editorial, *Med. News*), reviews the various theories of this relationship, and asserts their inadequacy to explain the morbid process. He advances two main questions: Does disease of the heart lead to disease of the kidneys? and what is the relation of renal affections to cardiac disease? In 127 cases of valvular affection under observation only eight showed actual renal disease, amounting to more than congestion, and in not one was the kidney contracted. This differs from the records of Delafield, who found in 137 cases of death from heart disease 27 large white kidney, 29 atrophied kidneys, and 28 of chronic nephritis, which could not be classed as either large white or atrophied organs. The conclusion was that heart disease rarely leads to chronic renal disease, but to the well-known large, firm codgested organs.

Of valvular affections of the heart, associated with disease of the kidney, there were 41 cases in 101 instances of Bright's disease (57 acute and 44 chronic). Of the 41 cases, 29 were chronic Bright's and 12 acute. In 13 of the 29 chronic cases and in 3 of the acute cases, rheumatism was an antecedent. In 79 cases of acute Bright's disease there were only 16 cases of valvular disease, but hypertrophy could not be determined in any of the cases.

In the cases of hypertrophy without valve lesion, commonly associated with the contracted kidneys of chronic Bright's disease, the suggestion is made that the hypertrophy, as well as, to a great extent, the vascular changes, are the result of a common process, which takes its origin in the ganglionic system. In all cases changes were found in the inferior cervical ganglia, indicating atrophy and fibrosis. The lecturer believes that in a deranged nerve influence, depending upon widespread changes in the ganglionic system, a solution of the question will be found. While there may not be any inherent improbability in this view, yet the anatomical question cannot yet be considered as finally settled. The investigations of Hale White would indicate that these changes are common in many diseases, and the tendency of late has been against attributing any special importance to these alterations. The suggestion of the lecturer, however, brings into prominence a hitherto neglected aspect, the consideration of which may throw new light on many of the obscure problems in the etiology of chronic Bright's disease.

Oertel's Treatment of Heart Disease.—Prof. O. (*Med. News*), after careful experiments, would now exclude from its application all cases of advanced atheroma and grave impotence of the heart muscle. By a combination of an appropriate diet (animal food containing little water), and exercise obtained by the gradual ascent of mountains, he obtained the following results: 1. Dimunition of the quantity of fluid in the body, and removal of the condition which he had termed "serous plethora." 2. Oxidation of the fat. 3. Compensation between the arterial and venous system. 4. Strengthening of the heart muscle. This method, he says, ought not to be employed when the dyspnœa was increased by it and the flow of urine diminished. Prof. Lichtheim denies the existence of a serous plethora, and believes the relative amount of red corpuscles and serum to be a constant quantity. He thinks the above method only suited (although then very effectual) for cases of fatty heart in persons of sedentary habit who live high, and for the removal of dropsical swellings. The chief danger lay in acute dilatation of the ventricles; several of the cases of sudden death recorded were thus brought about. Dr. Kisch said that in cases of general obesity, with or without dropsical swellings, he had found the proportion of red corpuscles to be always constant.

Stab Wound of the Left Ventricle.—*The Medical News* abstracts the report of a case of a Cossack, who in a quarrel with a fellow-soldier, received a stab wound in the fourth intercostal space of the left side, in the mammillary line and parallel to the ribs, which bled profusely. The wound was cleansed, a compress applied and restoratives were given. The area of dullness was greatly extended over the cardiac region, but the patient gradually recovered, and was discharged from the hospital in four weeks' time. Five days afterwards, in attempting to lift a heavy weight, the patient expired suddenly. Post mortem examination showed the integument wound closed; the pericardium was adherent to the wound. The cavity of the pericardium was filled with dark blood; a small punctured wound of the left ventricle was present, whose edges showed beginning fatty degeneration of the heart muscle; subacute endocarditis was diagnosticated. The wound in the ventricle had probably closed, but the sudden strain had ruptured the cicatrix; the endocarditis resulting from the wound had not yet been recovered from. The reporter writes that seven per cent. of heart wounds are stated to have healed.

REPORT OF SURGICAL PROGRESS.

By Egbert Guernsey Rankin, A. M., M. D.

Suprapatic Prostatectotomy.—This operation was advocated by Mr. McGill at a recent meeting of the London Clinical Society. He relates three cases in the *Brit. Med. Jour.*, Nov. 19, 1887, in which it had been successfully performed.

The operation consists of the usual suprapatic section and the removal with scissors and forceps that portion of the enlarged prostate which causes the retention of urine. Drainage, as well as the removal of the cause, are the benefits derived from this procedure. As yet, the operation has only been performed in acute and urgent cases.—*Med. Record.*

A Case of Ileus Cured by Puncturing the Gut.—Wentscher reports the case of a man, 42 years old, who had suffered for ten days from obstinate constipation, the cause of which was unknown. The abdomen was much swollen, tender over its whole extent, but not particularly painful at any point. On admission the patient had stercoraceous vomiting. Puncture into a well-marked and prominent portion of the intestine with a fine trochar permitted the escape of offensive gas, followed by a teaspoon-

ful of dark fluid, with fecal odor. As a result of the operation the abdomen became much less distended, and markedly softer. In the evening 800 gm. of dirty, sour fluid was removed through a stomach tube. Twelve hours later the patient had the first stool, from which time convalescence was undisturbed. The cause of the obstruction was not discovered.—*Centralblatt f. Chirurgie*, March 17, 1888.

Hot Saline Injections to Prevent Shock.—Dr. W. Gill Wylie, of New York, in a paper before the New York State Medical Society, announced it as his intention hereafter to give large eight to ten ounce hot saline enemata during and immediately after laparotomy or surgical operations, to prevent shock, and to take the place of transfusion whenever loss of blood indicates their use. He has tested this treatment in two formidable cases, with satisfactory results.—*Practice.*

Excision and Scraping of Carbuncles.—Mr. Herbert Page, following Mr. Pridgin Teale, of Leeds, has recently had good results by treating carbuncle by scraping with a sharp spoon; the method is certainly an improvement on the treatment by potassa fusa, the same result being attained in a much shorter time. In an exhausting disease, such as carbuncle, time is one of the elements of the cure. In the *British Med. Jour.*, March 31, 1888, there is an article on this method by Mr. Rushton Parker, of Liverpool, who relates four cases, two of which are here given:

Case 1. Girl, aged 19 years, with an acute brawny inflammation of the left side of the chin, of four days' duration. Under chloroform an incision was made, and the nodule inspected within, as there was a question of malignant pustule. The tissues in the centre were gray and purple, and the nodule was decided to be a carbuncle. A conical piece was excised, pure carbolic acid put into the wound, with a sublimate dressing laid on. The inflammation melted rapidly away, day by day, and the girl was entirely well in a fortnight. Here the best practicable form of immediate local extirpation seemed to be excision with a sharp knife, on account of the density of the tissues. The virulent centre was about the size of a pea, yet the collateral swelling was as big as half a walnut.

Case 2. A night-soil carter, aged 23, had a pimple on his neck. This he picked, and on the second day after his neck began to swell and his head to ache intensely. On the fourth day he came to the Liverpool Royal Infirmary, with the left side of his neck in a swollen, red, angry state, very much like malignant pustule; his temperature was 104°. Excision of the centre, dirty-gray and purplish, with some surrounding skin, was done without an anæsthetic shortly after his admission. Pure carbolic acid was put in, and sublimate dressings applied. Temperature 105° in the evening, but fell to 100° during the night. Temperature remained above 100° until the third day after admission. On clinical grounds the case was regarded as a mild form of malignant pustule, but as neither the juice of the excised fragment nor the patient's blood nor urine showed bacilli under the microscope, the case is now considered to have been one of carbuncle with unusually severe symptoms, presumably due to ptomaine poisoning.

In a case of carbuncle on the back of the neck a crucial incision was made under chloroform, and most of the carbuncle tissue being soft and pulpy, it was removed by means of the sharp spoon. The bleeding was abundant, but was controlled with hot water and pressure with sponges. The patient became perfectly comfortable, and made a good recovery under dressings of sublimate and eucalyptus ointment.

The use of pure carbolic acid has the advantage that the acid produces local anæsthesia in addition to its antiseptic qualities.

On the other hand, Dr. Robert Main gives, in the *British Medical Journal*, May 19, the following experience of the treatment of carbuncle: "I have tried the expectant treatment of carbuncle recommended by Paget, but find it so long, tedious and painful to my patients that I have completely discarded it. The treatment by excision and scraping is too severe to be generally adopted in private practice, although apparently very successful. I have adopted the following for the last three years, to which I have added the hypodermic injection of cocaine. I inject into the carbuncle hypodermically half a grain of hydrochlorate of cocaine, and wait about five minutes until the skin is quite anesthetic; then I make a small incision into the centre of the carbuncle with a tenotomy knife, and insert a small sharp piece of potassa fusa, and then push it home. Afterwards a piece of belladonna plaster is cut circular, a little larger than the carbuncle, and placed over it. The plaster serves the double purpose of retaining the caustic and of alleviating the pain. This is kept on for eight hours, and then it is taken off, and hot linseed poultices are applied for the same length of time. The result is that the patient always recovers about three days after the commencement of the treatment, which in this way is carried out almost painlessly."

ANATOMY IN ITS RELATION TO THE PRACTICE OF MEDICINE.*

BY PROF. C. E. LANING, M. D., CHICAGO.

The physician who is familiar with anatomy has a great advantage over his colleagues, in that he does not require half the reading to post himself or keep posted, for everything is so clear to him as he reads that it requires little study, nor does it necessitate the frequent "brushing-up" process which is otherwise requisite. If I read a thing once understandingly, I do not need to read it again; I have grasped the idea, and not the mere words in which it is clothed, and hence it is easy to retain it.

A proper knowledge of anatomy would make it plain that since the third nerve supplies the circular fibres of the iris, the so-called constrictor pupilæ, while the radiating muscular fibres, or dilator pupilæ, are supplied by the cervical sympathetic, paralysis of the third, by allowing its opponent to act without resistance, would cause dilation of the pupil, one of the necessary acts in far accommodation. That the further action of this drug in producing far sight may be understood, the anatomical facts in the case must be clearly comprehended. The crystaline lens is moved forward and compressed by the action of the ciliary muscles, as is the case when accommodating the vision for near objects. The third nerve supplies the ciliary muscles, it being paralyzed, or in a state of paresis, it is evident that the movement of the lens which occurs in accommodating for near sight cannot take place. Just the opposite condition is caused by physostigma, because it irritates, stimulates the third nerve, and thus causes a tonic contraction of the ciliary muscles, and hence the lens is affected in such a way as to cause accommodation for near sight, and the patient has not the power to change the focus of

* *The Clinique.*

the eye. At the same time irritation of the third nerve causes the constrictor pupilæ to be thrown into action, and the pupil contracts, just the opposite of what occurs under belladonna, to which physostigma is a well-known antidote.

It may be asked wherein is the advantage of knowing these facts, or of having in one's mind the anatomy of the parts concerned? It must be remembered that the pupil may be dilated in different ways, from different causes, and the ability to determine the cause of a given symptom must be recognized as of importance. Suppose now that the pupil is dilated in another case in which the third nerve is not involved, as, for instance, occurs under the action of cina. How will our anatomy help us out on this? It will not only explain how it can be, but enable us to remember the facts in the case by the one hearing. Cina dilates the pupil in a reflex way, that is, it causes an irritation of the sympathetic nerves of the stomach and intestines, and this irritation is conveyed through the so-called *rami-communicantes* up to the cervical ganglia of the sympathetic, and from this point arises the fibres which, as we have seen, control the dilator pupilæ. These nerve filaments, being thrown into an abnormal degree of activity, cause the pupil to dilate, and for just the opposite reason that bell. causes the same symptom.

If now we are acquainted with the anatomy of these cases, we at once understand why the cina patient does not have difficulty, or at least not nearly so much as the belladonna case, in accommodating the eye to near objects. Not affecting the third nerve, cina does not interfere with the action of the lens in accommodation, as does belladonna, since the ciliary muscles are left free to act. I might go further, and show how anatomy enables us to follow the similarities and differences between these two remedies, showing why that, while both have or produce a dilation of the pupil, the one causes the coats of the arteries to be relaxed and the pulse full and bounding, while the other contracts the circular muscular tissues of the arterial walls, and consequently has a pulse which is "small, but hard and accelerated."

If thoroughly familiar with the anatomy of the tissues involved in the above illustration, any one hearing this will have the facts of the case indelibly impressed upon his mind, while if not, the whole thing will seem nebulous and illy defined. What is true in this case is true all through. The physician who is perfectly acquainted with the anatomy of the liver, and can follow out the various vessels and nerves which enter and leave it to their ultimate origin or termination, will have little, if any, trouble in remembering the symptoms of cirrhosis of that gland. He can at once comprehend how, if the connective tissue entering into its formation undergoes hyperplasia, the capillaries in the liver, which represent the breaking up of the portal vein, will be compressed, and consequently a stasis of blood occur throughout the entire portal system, giving rise to ascites, constipation, gastric catarrh, etc. It at once becomes plain why this gland should have the irregular, uneven, outline which gives it the name of hobnail liver. The connective tissue not being developed evenly throughout, causes contraction of some parts more than others, giving rise, of course, to elevations and depressions upon the surface of the organ. It will readily be understood why ataxic symptoms result when there is a hyperplasia of the connective tissues in the column of Goll, if the physician is only familiar with the anatomy of the cord. How easily, by the same token, will he comprehend why the "reflex" is diminished or entirely absent in such cases.

The anatomist needs to be told but once how the pain under the right scapula, which occurs in provings of chelidonium and in certain hepatic diseases, is conveyed there, for he has clearly in his mind the great splanchnic and its ramifications, by means of which the pain is reflected. He can see at a glance how, through the same nerve, certain gastric disturbances give rise to a more or less continuous ache in the dorsal region between the scapulæ.

Let me emphasize this: It is not a *general* knowledge of anything which makes a man skillful, and the man whose tendency, or habit, is to generalize, is out of his sphere as a practitioner of medicine. That *special* knowledge in medicine is what is needed is certainly evidenced by the large number of specialists who have developed within the past few years; and it is a noteworthy fact that the best of these men commenced the study of their specialty by making themselves thoroughly familiar with the anatomy of the structures involved in the class of diseases which they treat.

As I have already stated, anatomy, or rather a knowledge of it, makes all things pertaining to medicine more easy of comprehension. If a student is told that primary pneumonia almost invariably begins in the base of the lungs, he may remember it for a time, or even may retain the fact as stated to him indefinitely; but how much better does he understand and remember it if at the same time he is told the anatomical reason for this fact. Equally true is it that the student or physician will better remember and understand the various symptoms of a cardiac valvular lesion if he is acquainted with the anatomical basis of the whole thing. It is needless to multiply illustrations, for they might run on to infinity. One word more in regard to the importance of diagnosis. I do not mean that a diagnosis will help a physician to prescribe if the name of the disease is but an empty name to him, for it should convey to his mind the nature and location of the difficulty. If some physicians were told that their patient was suffering from an attack of *polio-myelitis anterior acuta*, they would find little material assistance from the diagnosis as regards the making of a prescription; but to a physician who from the diagnosis could at once locate the lesion, and who understood the nature of the pathological changes which take place in this disease, and knew the histological elements involved, to such a physician, I say, its diagnosis might be of incalculable value.

The many ways, the many times that a proper, practical knowledge of anatomy may and will assist the physician are far too numerous for one to attempt to enumerate in a paper of this scope. The fact that similar, or apparently identical objective and subjective symptoms have at times an entirely different meaning, according to the lesion giving rise to them, makes it imperative, from simply a therapeutic standpoint, that the physician should be able to properly interpret them, and this he cannot do unless he has more than "a general knowledge of anatomy, enough to practice medicine."

The Crowning Achievement of Ophthalmic Surgery of the Present Century.—Under this title Dr. L. Webber Fox describes in the *Medical and Surgical Reporter*, Professor Von Hippel's operation for the transplantation of the rabbit's cornea to that of man. By this operation Von Hippel has restored sight to an eye practically blind, and Dr. Fox predicts that it has a brilliant future in doing this.

kind of work. He saw the patient upon whom the first successful operation was performed, and learned its technique.

Dr. Von Hippel recently showed a second patient, and demonstrated his operation before the Ophthalmological Society of Heidelberg. The patient was found to have a visual acuity of 20-200, and read Jaeger's No. 6, from which it would be inferred that the new cornea did not clear up completely.

SOUND ADVICE WELL PUT.

Hon. Chauncey M. Depew, in his address to the graduating class of the Syracuse Medical College, said in part:

"The vocation chosen by a young man is governed oftener by accident than inclination. But the manner in which it is pursued is controlled neither by luck nor chance. The liberal professions are crowded with incompetents. I know ministers who should be palace car conductors, poor lawyers who would have been good drummers or clerks, and medical men who are more dangerous to their patients than the disease they treat, who were destined by nature for the farm or the factory. The world is a workshop full of misfits, and misfits are always cheap. It requires both faculty and courage, when you have discovered your mistake, to drop your tools and start again. But if all the doctors, lawyers and ministers who never can get on in their professions would get out and find other fields of labor, it would be infinitely better for themselves and the country. A living stream of new applicants for public favor and support pours through the portals of the schools of medicine, law and theology. It is estimated that doctors are thus manufactured in such large numbers that they form one to every three hundred inhabitants. At first view this seems very discouraging, but the situation has many compensations. So many are wholly unfit or badly prepared, that while they increase the miseries of mankind, they add to the business and profits of those who are capable. The competitions of modern life have become so keen that there are no opportunities for the lame and the lazy. The first must find their proper pursuits, and the second must work or go to the wall.

'I have no faith in mottos or maxims or rules for success, and though often asked, never have any to give. A young man who has good health and governs his conduct by a conscientious answer to the ever present question, Would my mother approve? and gives tireless attention to his business, is certain to succeed. It is impossible for every one to win fame or fortune or both, but the man who earns a living, even in a very modest way, feels the inspiration of independence and has safely passed the precipice of failure. Repinings for riches and angry envy of prosperity weaken the moral tone and mental fibre. They paralyze effort and end in empty vaporings in the barroom and empty larders at home. The opportunities for accumulating large fortunes rarely come to the members of the liberal professions. Their compensation are in the position and influence accorded to their culture and training. With them, self-support is success, and when the surplus surely comes and with it home, larger comforts and fair competence for declining years, they enjoy a measure of happiness and content rarely found with the use and care of great wealth.

"I have learned both by experience and observation that the only real and lasting enjoyment in life is to be found in work. Everything which man creates decays when neglected, but nothing in nature or art goes to pieces so fast as man in idleness. The conditions of health, happiness, development, mental, moral and physical vigor and unimpaired faculties for old age, are found only in the full exercise of all our powers to the limit of their capacity. I know men who were completed when they graduated. Their thought and talk have never gotten beyond college politics and the rivalries of the secret societies. They are human phonographs, and the echo of their under-graduate voices of a bygone generation touches no sympathetic chord in the activities of to-day. Such men have always been nerveless idlers and in middle life are hopeless failures. Sir Henry Holland, when past eighty, returning from his annual vacation to find his carriage awaiting him at the depot, and completing his round of calls upon his patients before reaching his house; Mr. Gladstone, at seventy-eight, more diligent in public duty than any member of his party, and yet finding time for excursions in the classics, modern languages and the sciences, and to maintain a controversy in defence of the Bible and Christianity, furnish unanswerable testimony to the sustaining and regenerating power of work. When a young man is sure that he has found the calling best suited to his abilities and training, whether the professions or the farm, business or mechanical industry, three rules will invariably carry him through—stick, dig and save.

"But while every pursuit has its claim upon the general welfare, the profession you have chosen is entitled to more than ordinary consideration. Necessarily experimental, it furnishes boundless opportunity for cranks and frauds. Human suffering is an easy field for quacks, who live upon the credulous and the weak. The strongest natures, when overtaken by disease, are easily imposed upon by the confident promise of health. It is only in curing the sick that profit and prosperity comes soonest to the most brazen pretender. But the profession, with rare courage and sacrifice, has always been true to its ideals and to progress. It has waged unceasing warfare against the mysterious, which fools the ignorant and degrades the standard of practice. Its history is one perpetual trial of suggestions and discoveries, and it has subjected them all to severest tests, rejecting the false and adopting the true. It refuses gain which comes with deceit and mercilessly disciplines the offenders against its code. The marvellous advances in the healing art, by which suffering has been alleviated, life prolonged and human happiness immeasurably increased, have been due to the conscientious devotion of physicians to that nobler side of their work by which their brethern and the world receive at once and without hindrance or cost the benefit of their discoveries.

"The history of medicine is the story of civilization. The standard of the profession is the barometer of the cultured intelligence of the country. As the Greeks were the most refined and best educated of all the nations of antiquity, as they so excelled in art and literature that their works remain the models for all generations, as they alone of the ancients questioned all things and dismissed what could not be proved, so their doctors became the founders of a medical system which was vigorous enough to outlive the ages and elastic enough to embrace the developments of time. Aesculapius, 'the blameless physician,' in the heroic period made medicine a mystery and became a god, while Hippocrates, in the light of Attic civilization, gave the world in nearly a hundred books the results of all the researches of the past and is venerated as the 'Father of Medicine.' During the conquering and

barbarous times of the evolution of the Roman, the physician was a slave and the fate of torture or freedom sharpened the wits of a knave, but in the Augustan age he was the honored companion of the Emperor and his contributions led in the advance of science and discovery. In the dark ages the profession again fell into the depths of superstition and was filled with impostors, but in the glorious awakening and emancipation of the mind which followed the invention of printing, the school of medicine grew to be the noblest department of the university. The progress of science and invention which are the marvels of this century is fully equalled by the less heralded advance of medicine. The Vanderbilt endowment of a million of dollars, the Carnegie and Loomis gifts, each of many hundreds of thousands, have done much to plant in New York City the best opportunities in the United States for a medical education.

"The progressive spirit of this institution (Syracuse Med. College) happily recognizes that among the many avenues opening for work for woman, medicine should give her a cordial welcome. As a nurse she is always the comforting and ministering angel of the sick room, and the opportunities for her usefulness as a physician are as boundless as the complex ills which flesh is heir to.

"The doctor who simply marches abreast of the progress of his profession must be broadly educated and a discriminating student. There will be many years before your practice occupies all your time and this is your golden opportunity. Sir Astley Cooper, the most famous of English surgeons, received in fees his first year $25. At the end of six years his practice netted only $600, but in his fifteenth year a patient flung into his lap a check for $5,000 for a single operation, and his income grew from that time until it reached $100,000. You will not all be Sir Astley Coopers, but your early struggles can be cheered by his story.

"During the period when you have little to do, read; upon some method if you can, if not, read without method. The process not only broadens a man with a wealth of varied information, and a view of the whole field of knowledge, but it suggests congenial excursions into politics, theology, philosophy and socialogy which invigorate and fertilize the mind and give a stronger grasp on your profession. It does more; it stores away in the memory an exhaustless stock of incalculable value in busier years. Acquire the habit of improving the odd minutes. The majority of men employ the unavoidable waits, between the scenes of our daily family drama, in preparing for either the idiot or the insane asylum. They do nothing and think less, or get mad. They are the types of the friend we know so well who spoils the trip or party by storming first about, and then at the one who is the cause of the delay, or of the good deacon who responded to his pastor's earnest compliment that no matter who slept he was always awake and attentive. 'Yes, doctor, when you are preachin', I sits and thinks of nothin'.' Doctors cannot accept office without losing their patients. Their relations are purely personal and confidential and cannot be delegated to a partner or friend. Physicians and railroad men are about the only people who must abandon their business when they enter the public service.

"The profession of medicine is peculiarly rich in inspiring examples and courageous charity. The fury of the fighting upon the battlefield makes cowards brave and brave men heroes. But amid flying shot and bursting shells, in the calm and cool possession of every faculty, the surgeons face death in the presence of horrors which appall the stoutest hearts. No soldier leading a forlorn hope ever presented a tithe of the sustained daring of the doctors who have repeatedly left home and dear ones to meet the deadly pestilence in the plague-stricken cities of our land. Their deeds were unheralded. No trumpets inspired the charge. The only sounds which greeted them were the despairing cries of the sick and the groans of the dying. Fame had for them no promise, and their only reward was the consciousness of duty nobly done. We live in a charitable age. Vast sums are yearly given to found and endow educational institutions, to build hospitals and to equip houses and asylums for the helpless and unfortunate. But the gratuitous services rendered by physicians every day to the poor are larger contributions in proportion to their incomes and estates than any of the noble donations which have made the generous famous. They meet the requirements of the purest benevolence, for the left hand literally knoweth not what the right hand doeth.

"Such a man is the community's best friend. At the festival he is the soul of the entertainment, and in the house of mourning or distress he is the source of comfort and help. He is the confidant of all the lovers, makes up their quarrels and secures their happiness. He discovers the skeleton in the family closet, and drags it out and buries it; he brings husband and wife together, and saves them from separation and disgrace. He finds out the promise of the boy, and successfully plans a way for carrying him through college and for the acquirement of a profession. He has the confidence of quarrelling neighbors, and, as arbitrator or mutual friend, adjusts their differences and brings them together. In his daily walk and conversation he preaches from a perambulating pulpit lessons, principles, maxims, doctrines and proverbs, which in time form a large part of the opinions and virtue of his constituency.

"The rush and worry, the wear and tear, the rapid pace of our American life irritates our nerves and renders us peculiarly sensitive to impressions. The personality of the doctor, his disposition, his habits and his character, form a large part of his success or failure. The vain and pompous doctor, who thinks so much of himself that he fails to appreciate the weakness and watchfulness of the sick, leaves behind him a sense of neglect and indifference which neutralizes his medicine. The discursive and argumentative doctor airs his opinions on politics or theology to aching bones and fevered brains until only weakness keeps the outraged victim from murder. The grossest injury to the helpless patient, absorbing with every breath the spirit of her environment, is the polluting presence of the doctor saturated with whiskey or tobacco. But when the clean, cheerful and hopeful physician enters the room he brings in comfort and health. The sufferer knows that this man is able and skillful, that his brain and heart are full of the case, that his sympathies follow his efforts, and the potentiality of his powders is intensified by the inspiring magnetism of his personality. He is welcomed with faith, and blessings follow his departure. He exercises despair and is the victor over death."

Schools for the Insane.—In several of the hospitals for the insane, an experment is being tried which is one of very great interest. A system of instruction, such as is given to pupils in an ordinary school, has been arranged, together with calisthenic exercises in which many of the patients have come to be much interested, even some who at first strongly resented the idea of going to school.

MISCELLANY.

—England's leading woman doctor is said to be Mrs. Garrett Anderson, who has a practice worth $50,000 per year.

—Thor of Bucharest claims to have cured seventeen cases of seminal emissions by giving them from seven to fifteen grains of antipyrin on retiring.

—According to the report of Fournier out of 387 males who had contracted gonorrhœa twelve were traced to public prostitutes; 44 to clandestine prostitutes; 138 to kept women; 126 to shop girls; 41 to domestics, and 26 to married women. This, upon close enquiry, will be found to be the experience of all who treat many venereal cases.

—Dr. W. H. Gardner, U. S. A., recommends in sea sickness from ten to twenty grains of the *oxalate of cerium* every two or three hours. He believes that seventy-five per cent. of all cases of sea sickness can be cured by that remedy.

—The *Medical World* says non-syphilitic psoriasis of the palms and soles is speedily benefited by arsenic, and as surely made worse by mercury. Syphilitic psoriasis and papular syphilide of the same parts are improved by mercury and made worse by arsenic.

—The *Philadelphia Medical Times* says "some hundred years ago there was a system of allopathy, but all the adherents of that system died long ago and the belief is no more. There is neither an allopathic school, nor an allopath."

—The law changing the manner of execution from hanging to the passing of an electric current through the condemned man's body will go into effect in this state in cases of murder committed after next January. Until that time the old process of hanging will prevail.

—It is only through the morning gate of the beautiful that you can penetrate into the realm of knowledge; that which we feel here as beauty we shall one day know as truth.—*Schiller.*

—Flowers are the sweetest things God ever made and forgot to put a soul into.—*H. W. Beecher.*

—A clergyman, not strictly orthodox, says do not spend your money for a motto "Save My Lambs" until you have cleaned out your cellars, privies, back yards and alleys. Diptheria, typhoid fever and other zymotic diseases are not kept out of your house by mottos.

—In the course of the remarks of a believer in Christian science at a funeral recently he repeated one of the axioms of their faith "there is no pain, no distress, no suffering." As he was going down the stairs he slipped, and falling struck the end of the coccyx on the sharp end of the stone steps, as he rose to his feet groaning in agony, a young man shouted amid the laughter of the crowd "no pain, no distress, no suffering."

—In medico-legal practice it is often of the utmost importance to distinguish between human blood and that of different animals. A writer in a Spanish journal says that if blood is mixed with bile small crystals are formed, which in man are right angled prisms; in the horse, cubes; in pigs, rhomboids; in sheep, rhomboidal plates, and in dogs, right angled prisms similar to those found in man.

—Bartholow says the bromide of lithium is almost a specific in muscular rheumatism.

—Dr. H. T. Goodwin says, in the *N. Y. Med. Journal.* he has found cascara of marked benefit in certain forms of rheumatism. He has used it in thirty cases of the subacute variety, with benefit in all but three cases, when there was syphilitic complications. He gives it in doses of from ten to fifteen drops of the fluid extract three or four times a day.

—A chemist says equal parts of dil. lactic acid and glycerine applied to the face will remove moths and freckles without injury to the skin.

—*Life* gives as sound advice to those who cannot sleep at night to sleep in the day time.

—The Albany Hospital is in want of a resident physician. Address Dr. Lester M. Pratt.

—Dr. Strong, chief of staff, Ward's Island Hospital, reports 977 cases under treatment during the month of May; mortality, 3 28 per cent.

—Helmholtz dates his start in science to an attack of typhoid fever. This illness led to his acquisition of a microscope, which he was enabled to purchase owing to his having spent the autumn vacation of 1841 in the hospital, prostrated by typhoid fever. Being a pupil, he was nursed without expense, and on his recovery he found himself in possession of the savings of his small resources.

—A pencil has been manufactured in Germany for writing on the skin. It is made for the use of physicians to make memoranda upon their patients.

—Strange to say, there is one disease which, on examination made to determine whether or not it is dependent upon bacteria, fails to show itself capable of being produced by these micro-organisms. It is dysentery.

—Dr. Manson, an English physician, has been summoned from Hong Kong to take medical charge of the young Emperor of China. This is said to be the first occasion on which a foreign doctor has ever attended a member of the imperial family.

—A Congress of Physicians and Veterinarians will be held in Paris from July 25th to 31st, 1888. Any physician or veterinarian may become a member by registering and paying a fee of ten francs ($2). The subjects proposed for discussion by the Committee on Organization are:

1. The dangers incident to the use of meat or milk from tuberculous animals, and the way to escape them.
2. The human races, the species of animals and their organic surroundings in respect to their proneness to tuberculosis.
3. The channels for the introduction and for the propagation in the economy of tuberculous virus, and measures of prophylaxis.
4. Early diagnosis of tuberculosis in man and in animals.

Other subjects may be discussed by members of the Congress if they choose.

—A Parisian physician confines himself to telephonic practice. He furnishes his patients with prescription blanks, and when called by any one of them in case of emergency he telephones back his directions, which are written out, read to the doctor and sent to the druggist. This saves the family doctor from many a night call, and does not interfere with his business, as the telephone physician does no ordinary practice.

—At the recent commencement of Yale University the title of LL. D. was conferred on Dr. Wm. Tod Helmuth; an honor well bestowed and richly deserved.